

Catalogue 89-532E



International Conference on the Measurement and Valuation of Unpaid Work: Proceedings



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Statistics Canada
Labour and Household Surveys Analysis Division

International Conference on the Measurement and Valuation of Unpaid Work: Proceedings

Published by authority of the Minister responsible for Statistics Canada

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August 1994

Price: Canada: \$40.00

United States: US\$48.00

Other Countries: US\$56.00

Catalogue No. 89-532E

ISBN 0-660-15400-5

Ottawa

Version française de cette publication disponible sur demande (n° 89-532F au catalogue).

Note of Appreciation

Canada owes the success of its statistical system to a long-standing cooperation involving Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Canadian Cataloguing in Publication Data

International Conference on the Measurement
and Valuation of Unpaid Work (1993 : Ottawa, Ont.)

International Conference on the Measurement and
Valuation of Unpaid Work : proceedings

Issued also in French under title: Conférence
internationale sur la mesure et l'évaluation du
travail non rémunéré : actes de la conférence.

ISBN 0-660-15400-5

CS89-532E

1. Voluntarism -- Statistical methods -- Congresses.
2. Home economics -- Statistical methods -- Congresses.
- I. Statistics Canada. Labour and Household Surveys Analysis
Division II. Title.

HD4813 I57 1993 361.3'7

C94-988086-8

AVQ 3280

DEDICATION

These proceedings are dedicated to the memory of the late Dr. Ed Pryor who first suggested that this conference be held. Dr. Pryor, who was for many years responsible for the Census of Population, was tireless in the pursuit of the views and ideas of others. He encouraged and facilitated dialogue among data producers and users, both nationally and internationally.

ACKNOWLEDGEMENTS

The proceedings from the International Conference on the Measurement and Valuation of Unpaid Work were prepared and coordinated by Patricia Grainger and Lise Quenneville of Statistics Canada with the assistance of Ian Macredie. Statistics Canada gratefully acknowledges the contribution made by Zeynep Karman of Status of Women Canada, co-sponsor of the conference. The proceedings were prepared for publication by the Publications Unit of the Labour and Household Surveys Analysis Division.

Special thanks to the employees of the Social, Institutions and Labour Statistics Field and the National Accounts and Analytical Services Field of Statistics Canada and the staff at Status of Women Canada who contributed to the planning of the conference. We also thank the staff of the Translation Services Bureau of the [then] Department of the Secretary of State. We are grateful for the installation of kiosks by Communications Division and for the hospitality and excellent working environment provided by Conference Services of Statistics Canada.

We express our appreciation to the keynote speakers who prepared papers presented on the first and last days of the conference. Furthermore, we thank workshop organizers, chairpersons who moderated the discussions, rapporteurs who prepared the summaries, and resource persons who attended the workshops. Finally, thanks to all of the participants at the conference whose willingness to share their knowledge and experience was the ultimate source of the conference's success.

FOREWORD

This publication is a record of the International Conference on the Measurement and Valuation of Unpaid Work hosted by Statistics Canada and co-sponsored by Status of Women Canada.

The main purpose of the conference was to provide Statistics Canada with the experiences and insights of experts from Canada and from around the world, with a view to accelerating its developments in this field. It achieved this goal by providing a forum for the exchange of information on the benefits and problems associated with generating estimates of unpaid work and its value. Participants discussed the potential for developing a new system of accounts parallel to the existing System of National Accounts. They also debated the content of the 1996 Census of Population. Its comprehensive nature was intended to make initial input to the development of international standards or guidelines on the statistical accounting of unpaid work. Perhaps of equal importance for the global development of statistics on unpaid work, the conference was the starting point for the development of an informal international network of practitioners in the field.

Principal organizers were Patricia Grainger of the Labour and Household Surveys Analysis Division of Statistics Canada and Zeynep Karman of Status of Women Canada.

The conference was held in Ottawa, Canada on April 28, 29 and 30, 1993 in the Simon A. Goldberg Conference Centre. The sessions were on the following issues: Background and Identification of Challenges, User Requirements and Data Needs, Current Research, and A Vision of the Future. An open discussion followed each of these sessions.

The conference was well attended. The 150 participants represented a variety of statistical agencies, universities, associations and interest groups. They came from Canada, Australia, Belgium, Brazil, Denmark, Finland, France, Germany, Hungary, Luxembourg, Japan, New Zealand, Spain, Sweden, the United Nations, and the United States.

Fourteen workshops allowed participants to discuss issues relating to the measurement and valuation of unpaid work. Topics such as the definition of unpaid work, its measurement through various surveys, and techniques for estimating its value were covered. In addition, participants discussed the harmonization of paid and unpaid work estimates and the development of a set of accounts in parallel to the established System of National Accounts.

The proceedings are organized in two parts. The first part was distributed to conference participants as the Summary of the Proceedings, including Questions and Discussion. The second part includes the full text of presentations, workshop summaries, and lists of papers made available at the conference, other publications, and participants.

TABLE OF CONTENTS

	Page
Part I – Summary of the Proceedings including Questions and Discussion	1
Part II – Full Proceedings	19
A. Welcome of Conference Participants	
Ivan P. Fellegi	19
B. Opening Remarks	
The Honourable Mary Collins	22
C. Background and identification of challenges	
Ian Macredie	27
D. User Requirements and Data Needs	
Evelyn Shapiro	31
Duncan Ironmonger	34
Jamie Cassels	41
E. Current research	
Ann Chadeau	65
Luisella Goldschmidt-Clermont	69
Andrew Harvey	77
F. Workshop organizers, chairpersons and rapporteurs	86
G. Workshop summaries	
1. Concepts and Definitions of Unpaid Work	87
2. Unpaid Work and National Accounts	88
3. Care-Giving for Seniors, the Ill and Disabled	91
4. The Design of Time Use Surveys	92
5. Measurement of Volunteer Work	94
6. Measurement of Household Management	97
7. The Use of Statistics on Unpaid Work in Civil Litigation	98
8. The Valuation of Unpaid Work	99
9. Alternate Measures of Unpaid Activity - What and How	100
10. The Design of Input-Output Accounts for Non-Market Activity	102
11. Statistical Measurement Issues in the Field of Child Care	103
12. Measurement Aspects of the Trade-Off between Market Work and Unpaid Work on Behalf of Family and Community	107

Table of Contents – Concluded

	Page
13. Measuring Seniors' Contribution to the Economy and to Community Well-Being	108
14. The Division of Household Labour	110
H. Vision of the future	
Betty Havens	112
Regula Herzog	115
Robert Eisner	120

Appendices

1. List of Papers made Available at the Conference	129
2. Other Statistics Canada Publications on Unpaid Work	137
3. List of Participants and their Affiliations	141
4. Conference Agenda	149

PART I

SUMMARY OF THE PROCEEDINGS INCLUDING QUESTIONS AND DISCUSSION

WELCOME AND OPENING REMARKS

Louise Bergeron-de Villiers
Ivan P. Fellegi

Louise Bergeron-de Villiers, Acting Coordinator of Status of Women Canada and Conference Chairperson for the day, welcomed all participants and introduced Dr. Ivan Fellegi, Chief Statistician of Canada. Fellegi extended a warm welcome to the participants, and noted that the measurement and valuation of unpaid work is a field of statistics which is far less developed, and about which there is far less common understanding, than most other fields. This conference would be an important step in closing this gap.

Statistics Canada's primary objective in co-hosting the conference with Status of Women Canada was to enable the Agency to learn from the knowledge and experience of those working on the frontiers of the measurement and valuation of unpaid work. Dr. Fellegi said this would avoid having Statistics Canada repeating costly and time-consuming developmental and experimental work which has already been done. "We are committed to progress in this field and what we learn at this conference will considerably accelerate the rate at which we can achieve such progress. This conference, then, is not about whether unpaid work should or can be measured and valued, it is about the most effective and efficient ways of going about it," he said.

Fellegi explained that the discussions would cover various topics, including developmental work on parallel accounts to the System of National Accounts, alternate measures of unpaid work, design of time-use surveys, measurement of household management, use of statistics on unpaid work in civil litigation, and links between paid and unpaid work. He noted that an increasing number of countries are launching regular time-use surveys, and expressed hope that the conference would serve as a tentative first step toward the development of international standards and guidelines.

Fellegi outlined a number of current challenges in the field, beginning with the need to develop and use new techniques that are not now a standard part of the statisticians's stock in trade. "Many of these techniques, especially in the area of quantifying the value of different kinds of unpaid work, come from the social sciences, notably economics." He added that these techniques are further complicated by the fact that there is a lack of agreement, even among economists, on the most appropriate version of any given technique. This can be illustrated by using just two of the ways to cost unpaid labour in the household: by valuing it at the rate of pay that an unpaid worker could earn by spending the same amount of time in the paid labour market, or by dividing the unpaid labour into its component activities and valuing each according to the rate of pay in the paid labour market. The choice of methods is important, because each approach generates considerably different values.

The costing of unpaid labour poses particular challenges for statisticians, partly because it involves inferring a result rather than measuring it directly. "We infer a money value for the unpaid work, since by definition there is no market transaction to give it a price," said Fellegi. A second challenge is that the choice of methods does not depend on recognized statistical criteria relating to data quality, so that it is impossible to choose on the grounds that one method produces higher-quality data than another. The choice of valuation methodologies will eventually be made through consultation with the user community, rather than by using strictly scientific criteria.

Fellegi said it has also been difficult to develop simplified questionnaire design methodologies. A great deal of testing is required if simple question sets are to be refined to the point of generating meaningful and credible statistics. Statistics Canada has made a great deal of progress in accurately measuring the time spent in paid and unpaid activities, but this greater accuracy has made the design of the questionnaire far more complicated and detailed. Such complex questionnaires are appropriate when time-use measurement is the only objective of the survey, but not when the survey must serve other purposes as well. "Yet, if unpaid work is to be measured with reasonable frequency and using large samples permitting some detailed disaggregations, then dedicated surveys carry too high a price tag."

A great deal of development work will be required to arrive at a limited number of questions that could be included in ongoing major surveys addressing a wide range of important issues. "The best example of this, and the one for which Statistics Canada has been subjected to a great deal of unjustified criticism, is the Census of Population," said Fellegi. He noted that the Agency began developing a set of concise and practical census questions in the 1970s.

Analysts will also need new types of information if the data requirements dictated by a system of statistics on the measurement and valuation of unpaid work are to be met. Fellegi explained that Statistics Canada is proposing to publish annual estimates of the volume and value of household work. But the Agency has found that such estimates depend critically on having data on the volume of unpaid work, available only from time-use surveys, and on earnings by detailed occupation, available only from the Census of Population. These sources are only available once every five years. If other, more frequent surveys provide inadequate support for annual updates, requests for additional survey resources will have to compete with all the other claims on Statistics Canada's shrinking budget.

Specific data sets are also required to estimate the value of household production, which Fellegi defined as the output obtained when unpaid work, the services of household capital and intermediate goods are combined. "In other words, a meal results when the time of the people preparing it is combined with the equipment which they use, such as a stove, and with the ingredients, generally purchased at a retail outlet. To estimate the value of household production, data is needed not only to put a value on the unpaid work done, but also to determine the value of the services of the stove and of the intermediate goods consumed." He added that in order to produce basic parallel accounts comparable to the existing System of National Accounts, the valuation of outputs in the nonmarket sector would have to reflect the value of all of the inputs.

Dr. Fellegi concluded his remarks by wishing all of the participants a successful conference and expressed hope that in addition to exchanging information, participants would take the opportunity "to create new personal networks which will help all of us further our joint interests in unpaid work statistics."

The Honourable Mary Collins

The Honourable Mary Collins, Minister Responsible for the Status of Women, noted that improving the measurement and valuation of household work had

long been an interest of Status of Women Canada and Statistics Canada.

Collins said a woman once told her there are three kinds of work – part-time, full-time and all-time – and defined women's work as all-time work. "This describes so well women's sense of fullness of our lives," Collins said. "And much of the fullness is due to the countless hours of unpaid work we perform in the home."

Although there is a great deal of diversity among women, the Minister noted that women in Canada and throughout the world want greater recognition of the value of their enormous contributions to society through unpaid work at home and in the community. "Women share in creating prosperity, but do not share the wealth proportionately," she said. Getting Canadians and decision-makers to recognize the significance of women's unpaid work starts with a reliable assessment of its impact on our economy.

Collins briefly discussed the development of the measurement of unpaid work as an issue. She quoted the American social critic and writer, Charlotte Perkins Gilman, who commented on the lack of value attached to women's unpaid labour as early as 1900. Gilman wrote that the labour of women in the home enabled men to produce more wealth than they otherwise could, thus making women economic factors in society. More recently, groups have worked tirelessly since the 1970s to bring this issue to the attention of national governments and the international community. Collins added that their work received a real boost from the Supreme Court of Canada ruling in the case of *Peter v. Beblow*, in which a common-law partner was compensated for her years as homemaker.

The Minister underscored the Canadian government's commitment to this issue. She noted that Canada had supported the implementation of the Nairobi Forward-Looking Strategies on the Advancement of Women adopted at the 1985 World Conference on Women, and played a lead role in the development of the Ottawa Declaration on Women and Structural Adjustment, adopted by Commonwealth Heads of Government in 1991.

"According to the United Nations, women constitute half the world's population but put in two-thirds of the working hours," she said. "Women grow half the food, but receive one-tenth the wages and own a mere one per cent of the world's property." A study commissioned by the Carnegie Corporation and the Ford and Rockefeller Foundations estimated the value of women's unwaged work at \$4 trillion worldwide. According

to Statistics Canada's latest estimates, the value of household work was the equivalent of 32-39% of Canada's GDP in 1986.

Collins spoke of the second shift women put in at home after their day in the labour force. "It is estimated that women in the work force put in between 25 and 35 hours per week on domestic tasks, and that women working exclusively in the home devote anywhere from 28 to 56 hours per week to these responsibilities." She added that almost all women spend significantly more time than men engaged in unpaid work. But women's enormous contribution goes unrecognized, since it isn't incorporated into formal economic theory, recorded in statistical records kept by most countries, or calculated into the GDP. The Minister said the United Nations System of National Accounts bears partial responsibility for this, since UNSNA rules are widely accepted as the standard for the production of national accounts and labour force statistics. It was the UNSNA that established the production boundary, dividing productive activities which have a market value, and those which are not financially rewarded and are therefore excluded from the definition of economic activity.

Housework falls into the latter category, she noted. As a result, there is no accurate record of economic activity for the unpaid hours women spend on child care, elder care, food preparation, household work, bookkeeping or volunteer work. If there wasn't a woman available to perform these services for free, they would be recorded as economically productive activities. "To put it another way, try finding someone other than a family member to clean your house for free. Perhaps this is the origin of the expression 'on the house!'"

Collins listed some of the implications of women's invisibility in National Accounts. "It belittles our role in the economy and society," she said. "It chips away at our self-esteem. It leads policy-makers to overlook the impact of decisions on our lives. And it makes it difficult for women to achieve equality in our society." For all these reasons, she said the measurement and valuation of unpaid work is an important equality issue for women.

The Minister said the time has come to complete the picture of the economy and society. "It is my sense that in Canada there is increasing awareness and acceptance of the value of unpaid household work, child care and family care to the economic well-being of the family and to society overall." With an accurate assessment of the economic value of unpaid work performed by both women and men,

it will be possible to make decisions affecting the economic, social and environmental future of Canada based on a full understanding of the nation's activities.

She suggested that the courts' recognition of the value of women's unpaid work, in terms of monetary compensation to women following marriage breakup, is one part of this complete picture. Status of Women Canada and the Canadian Department of Justice have worked closely to develop an economic model to assist judges and lawyers in the determination of spousal support for women who have taken time away from the paid work force to care for their families. A more complete picture of economic activity could also have implications for the tax system, if the benefit system were designed to equitably reflect the contributions of taxpayers working in the paid and unpaid work force. She added that employers are now beginning to recognize the implications of women's disproportionate responsibility for work in the home.

Collins said greater awareness of the value of unpaid work will help redefine gender roles to include a more equitable sharing of household and family responsibilities, which would benefit both women and men. She concluded with the hope that the conference would help complete the picture of Canada's economic activity, and stressed the importance of ensuring that the boundaries of measurement accurately reflect women's experience in all its diversity. The power of statistics does not lie in the numbers, she said, but rather in the use of those numbers.

"With your participation, we can complete the picture of women's and men's experience," the Minister told participants. "We can add the missing brush strokes to the mural of our lives and make visible what has hitherto been hidden and unrecognized. As we do so, we will be helping women to take a vital step towards equality."

Ian Macredie

Ian Macredie, Director of the Labour and Household Surveys Analysis Division at Statistics Canada, described the conference as an important step in expanding the federal Agency's unpaid work statistics program. "We expect to be able to accelerate progress by applying what Statistics Canada learns over the next few days, as you share your experience and expertise with us," he said. "In the current fiscal climate, none of us can afford to spend scarce resources reinventing wheels."

Macredie said Statistics Canada is working to develop a complete system of unpaid work statistics that will address all forms of productive activities. The definition would include all unpaid work done in the household for the benefit of household members, all volunteer work, and all activities that are conducted outside a formal volunteer organization but flow through a network of families and friends.

Macredie briefly reviewed some of the data on unpaid work that had been developed since the 1970s, including several papers on the volume and value of unpaid work published by Prof. Oli Hawrylyshyn and Hans Adler. Statistics Canada made its first attempt to include unpaid work questions in the Census of Population in the 1970s, and conducted specialized supplements to the Labour Force Survey during the 1980s. These special surveys, covering topics such as child care and volunteer work, enabled Statistics Canada to refine its measurement techniques, opening up the possibility of even more credible estimates in the future.

The General Social Survey program was also launched in the 1980s, and has provided the richest database on unpaid work. It is conducted annually, but with different content every year. The 1992 time-use survey was conducted over the full 12-month period, in order to fully capture the seasonality of time use in Canada. The 1985 General Social Survey contained questions on family and friendships, and focussed on the help given and received by seniors. The 1990 General Social Survey extended these questions to cover help given to all adults, not just older Canadians. Both of these surveys were instrumental in distinguishing between exchanges of assistance occurring within households, and those involving members of different households.

Macredie described Statistics Canada's plans for future work in the field of unpaid work. "Building directly on the output which began with Hawrylyshyn and Adler, work will be undertaken within the System of National Accounts to refine the existing measures, with a view to exploring how the volume and value of household work has changed over time. In addition, the capital and material inputs to household production resulting in estimates of the value of household production (not just household work), will be generated." He said Statistics Canada's plan to publish these statistics on a regular basis, probably annually, would be extremely important in enhancing the visibility of unpaid work.

He also discussed the Total Work Satellite Accounts, a Statistics Canada program directed by Dr. Leroy Stone that focusses on both paid and unpaid work. The program, whose conceptual underpinnings have been under development for some time, will cover all types of unpaid work, notably housework, formal volunteer work, and services through social support networks.

Macredie explained that Statistics Canada cannot advance on all types of unpaid work simultaneously. At a time of limited resources, he said, it is preferable to achieve breakthroughs in certain areas than move slowly on all fronts. Because the various types of unpaid work have a number of characteristics in common, the techniques developed and refined in measuring one activity will accelerate the rate of progress on related topics.

Looking to the future, Macredie mentioned the development of possible questions on unpaid work for the 1996 Census questionnaire. "We know that we can measure unpaid work through the extremely detailed and highly systematic approach applied by professional interviewers in a time-use survey," he told participants. "The difficulty lies in condensing that complex approach down to the few simple questions allowed on the Census questionnaire for any one topic." The ultimate criterion, he said, is that "respondents must be able to consistently answer these questions without the assistance of a trained interviewer."

Macredie expressed appreciation for a task force of federal departments and agencies that had assisted with this round of Census questionnaire research and development. Participating groups included Status of Women of Canada, the Canadian Advisory Council on the Status of Women, the Voluntary Action Secretariat of Multiculturalism and Citizenship, the National Advisory Council on Aging and the Farm Women's Bureau of Agriculture Canada. Noting that the work on the 1996 Census of Population questionnaires had been both rewarding and challenging, he assured the audience that the presence of unpaid work questions on the Census in no way affects Statistics Canada's capacity to succeed in the other unpaid work initiatives that are already under way.

Macredie concluded by expressing a strong commitment to information democracy. "In the past decade, Statistics Canada has expanded its analytic output considerably, particularly analysis designed to be easily readable by a very wide audience. The result is that such analysis is far easier to report on,

and so gets far more extensive coverage in the news media." He said Statistics Canada would continue to use popular analytical vehicles as one of the means of disseminating its unpaid work data.

"USER REQUIREMENTS" AND DATA NEEDS

Evelyn Shapiro

Evelyn Shapiro, Professor of Community Health Sciences, Faculty of Medicine, University of Manitoba, said she had been asked to use examples from her life and research experience in her address. Citing a number of social and demographic changes such as the growing number of older persons, the decreasing number of children, the evolving role of women in the workplace and changing societal mores, she stressed the need to develop a data base which will have the capacity to assess trends. This means that the questions which will produce the data base must be carefully constructed so that they are good enough to retain in the future in order to avoid the problems of comparability with past findings.

Shapiro focussed on three types of unpaid work: service on community boards, direct service volunteers and informal caregivers. Volunteer board membership involves a great deal of responsibility and work beyond attending meetings such as taking part in preparing agendas or financial statements, working on subcommittees, or setting aside time for extra reading. It is her impression that, except for agencies dealing exclusively with women's concerns, men usually outnumber women as board member volunteers, possibly because men working in corporate settings see volunteer work as a contribution to their corporate profile. But new board members of either sex appear to be more difficult to recruit than before and also seem less likely to serve second or subsequent terms. It would be useful to find out why.

Shapiro listed a number of research questions that she would like to see addressed in this area in addition to the usual socio-demographic and occupational data:

- What is the current profile of a volunteer board member?
- How long have they served?
- Does their employer encourage such service?

- Do they plan to serve next year?
- Why do they serve?
- How much time does it take them?
- Are personal expenses incurred, and are they reimbursed?
- Why do volunteer board members leave?

Shapiro turned next to direct service volunteers such as persons who provide friendly telephone reassurance, meals-on-wheels or wheels-to-meals delivery, or transportation to essential appointments. This unpaid work often involves spending more time on behalf of those they serve than the specific tasks entail. They may also have out-of-pocket expenses associated with this unpaid work. In addition to the same questions as those for volunteer board members, she would also like to raise specific queries about invisible expenses, opportunities for reimbursement and if the work involves heavier-than-average physical demands.

Caregiving provided to relatives and friends is another important area of unpaid activity. Shapiro said work in this category sometimes requires specific skills, otherwise performed by professionals. Research indicates that 80% of the services provided to seniors are delivered by these informal caregivers. These caregivers are not "volunteers" like others who have chosen to provide a community service. They are performing unpaid work for reasons which are varied and complex, including a sense of obligation or duty, devotion, and/or the conviction that they are needed. They are predominantly women, some elderly and frail themselves, others working full or part-time and still others who have left the labour force to provide care. Research questions on this subject should include the following:

- What is their relationship to the care recipient?
- What is the care recipient's age and sex?
- Is any other family member, friend or neighbour also helping and, if so, with which tasks?
- Are formal services being used and, if so, for what specific tasks?
- Do they live in the same household as the care recipient; if not, how long do they travel?
- What specific tasks do they do?

- How many hours per day or week does each one take?
- Do they find some of these tasks more difficult than others and, if so, is it the physical or emotional demands which make these tasks more difficult?
- Have they left work or foregone a promotion as a result of their involvement?
- Does this involvement affect their income in other ways and, if so, how?
- Did they have to learn new skills and, if so, which ones?
- Have they reduced the time they spend resting, meeting family and friends, having fun? If so, by how much?

Some of these questions and others should also be designed to generate some qualitative as well as quantitative data. Professor Shapiro would involve herself in such research, she said, because the information is needed. She stressed again the importance of making questions comparable across time so that we can discern trends.

Researchers need to identify the reasons why people perform certain types of unpaid work, assess the contribution of unpaid workers to different types of activities, and estimate the cost of unpaid work to the worker and the dollar value of unpaid work to society. Government needs to know both the current input of unpaid workers, and the potential costs of replacing unpaid with paid work, if socio-demographic changes, without concomitant policy changes, make such replacement inevitable. One possible social benefit is that the data may give us the insights necessary to help us identify new types of individuals or new sub-populations which can be tapped to increase the supply of those who provide unpaid work.

Duncan Ironmonger

Duncan Ironmonger, Director of the Households Research Unit at the University of Melbourne, said the conference signalled a major change in practice, with statisticians, academics, community workers and other researchers coming together to look at the issue of unpaid work. He said this activity will help raise the visibility of the household economy, which accounts for about half of all economic activity. To look at unpaid work, he said, is to open the other eye on society's view of the economy.

Ironmonger drew on Alvin Toffler's three-wave theory of human history, recalling that the first wave was a pre-industrial period in which all work done was household work. During the second wave, the industrial revolution, goods were produced for exchange in the marketplace. In the third wave, industrial production is subsiding, and society is reverting to some extent to the household economy. Economic models, however, are still those of the second wave. Ironmonger challenged economists to develop new models that incorporate the reality of the household economy.

This issue is reflected in the evolution of the System of National Accounts, Ironmonger said. National Accounts were first used in 1940 as a means of systematically comparing the wealth of nations. But the household economy is only becoming visible 50 years later, with the extension of statistical analysis of time-use data that reveal how households allocate time between paid work, unpaid work and leisure. National time accounts will eventually be used as widely as national income accounts, he predicted.

Ironmonger suggested a distinction between the household economy and the market economy. The household economy, the sector that uses unpaid labour, is of such size and importance that it rivals the traditional market economy. And even though it is largely invisible, the household economy's relative size is increasing. As early as 1950, it was noted that investment in household equipment in the United States rivalled capital equipment investment in market industries. In the communication industry, for example, more dollars are invested in home televisions than in broadcast production facilities.

The output from all unpaid work could be termed "Gross Household Product", Ironmonger said, and could be added to "Gross Market Product" to yield the "Gross Economic Product" for a country. He suggested that growth in Gross Economic Product would likely be relatively constant, with slowdowns in growth of Gross Market Product offset by increased growth in Gross Household Product, as people move out of one economy, into the other, and back again. When national time accounts are taken at appropriate intervals, Ironmonger said, it will be possible to derive quarterly estimates of Gross Household Product.

Citing the work of Luisella Goldschmidt-Clermont, Ironmonger listed several uses of statistical measures of the household economy: to fill a statistical gap; to measure trends; to help make government policies correspond to economic reality; to identify relatively productive technologies; for

use in labour market planning, welfare and tax reform, and various other social programs; to support the development of population policies; and, to protect women's interests, in the courts and elsewhere.

The time is ripe for including the household economy in statistical evaluation, he said. He suggested that the conference could mark an historic turning point in the world's view of economics.

Jamie Cassels

Jamie Cassels, Professor of Law at the University of Victoria, provided an overview of "user requirements" from the point of view of judges and lawyers dealing with the intimate relationship between unpaid labour and justice. He suggested five key issues for discussion:

- * Legal systems have not valued women's household work. The law has been developed within an economic context and has focussed overwhelmingly on the dollar value of paid work, to the exclusion of other values.
- * A symbiotic relationship exists between economics and justice. When one changes, the other must adapt.
- * Women's legal position is slowly improving in every area. Research to date has laid the groundwork for legislative and judicial reform.
- * There's still a long way to go and better data will contribute to further reform.
- * Data expose problems, but don't solve them. Even the best data won't be sufficient to make problems disappear.

Cassels traced the Canadian legal tradition in this area back to 1885, when a Supreme Court judge described a man's loss of his wife as "sentimental" and not worthy of financial reimbursement. Other judges took a different view and awarded the man \$5,000, a considerable amount at the time. It is now standard practice for courts to account for economic loss when a woman dies, Cassels said, but there are no standards for the amount of the award. Allocating specific amounts for the contribution of different family members is complex, costly and uncertain. The process has been described as "crystal ball gazing" by one Supreme Court judge.

Patriarchal attitudes are also reflected in the adjudication of personal injuries. While full-time workers in the market economy can derive a lump

sum when their earning capacity is diminished by personal injury, household workers cannot. Until the late 1970s, unpaid workers, usually women in the household, were denied all compensation for earnings lost due to injury. Until the 1980s, the loss was seen as accruing to the rest of the family, not to the home worker. The courts have begun to acknowledge the value of home work, but awards to women tend to be much lower than for men.

Cassels noted that women often lose 15-20% of their earnings for bearing children and are more likely to retire early to care for their husbands, which reduces their economic worth. By contrast, marriage is an economic boon for men, whose earning capacity tends to increase. Men are also more likely to benefit when paying taxes: because household work is invisible and more likely to be done by the woman, the man receives a *de facto* economic benefit. For all these reasons, Cassels said, it is important to value unpaid work in legal proceedings.

Courts have made modest attempts to show sensitivity to women's needs, under such headings as "loss of enjoyment of life". Nonetheless, most awards have been based on the assumption that the homemakers' economic losses are minimal. One exception was the 1991 case of **Fobel v. Dean** in Saskatchewan, in which the woman's claim for compensation was awarded solely on the basis of the work she did outside the home. The Court of Appeal, stating that the time was right for a new direction, awarded a component for lost ability to do house work, and decided the amount of the award on the basis of recent Statistics Canada data. Based on an average weekly work load of 27 hours in the home, and recognizing that Fobel had suffered a 70% disability, the appeal court estimated her replacement cost at 15 hours per week.

Subsequent Saskatchewan cases have followed this precedent, although Ontario has been lagging behind. While the dollar value of the settlement in **Fobel** was low, Cassels said the principle established was valuable. Even so, he expressed concern that the award may not have reflected the real value of unpaid work to the family, particularly if the data used to determine the award contained the same gender biases that are found in the labour market as a whole.

The law does provide for equal division of property upon the termination of a marriage. But Cassels noted that this is not the case for unmarried partners, whatever household labour may have been performed. One woman lived for 34 years with a man to whom she was not married, working in the home and raising six children. She asked for half of

the household assets when their relationship ended, but was told by the judge that her contribution was "unremarkable".

The rights of common-law spouses became more visible in the case of **Peter v. Beblow**, in which the Supreme Court found that the household work of the common-law wife had helped the husband and was not now to be a detriment to her. To ignore unpaid work in this context would contribute to the further feminization of poverty. Cassels said the finding that compensation was owed to the stay-at-home partner has helped build momentum for change.

In general, he said, new research knowledge has quickly found its way into the courts and legislatures, where it has usually benefitted the less powerful members of society. Besides separation agreements and injury compensation, tax and business law are prime areas where research has played an important role.

Cassels offered a "gentle caution" to policy-makers, judges, and statisticians. Although statistics are necessary, he said, complete accuracy is impossible. People who have been living together don't expect litigation and don't necessarily want it; rather, they are looking for wider contexts and more options. He also noted that the process of assessing contributions from unpaid work and entering into litigation can be costly.

As well, reliance on available labour market data may be reflected in the tendency to evaluate unpaid work at minimum wage or lower. In **Peter**, the award was \$350 per month; in **Fobel**, the settlement was around \$100 per week. This suggests that research data from actual labour markets may reflect problems rather than helping to solve them.

Still, Cassels questioned why the awards were so low. He suggested it may have been because women do the unpaid work, or because of a flood of volunteers to the unpaid work sector. Either way, he asked why social injustice should be repeated in the courtroom, and stressed the need for more accurate, objective tools for future research in this area.

Questions and Discussion

A participant commented that it is important to go beyond time use when trying to determine the value of unpaid work in the home, and look at the various responsibilities and management functions of women. Ironmonger said it is extremely difficult to study the complexity of the household unit, and stressed that unpaid work must be recognized as a long-term investment in the future.

Another audience member said skills and performance are valued in the paid workplace, but not necessarily at home. She objected to the notion that all women are equally capable of undertaking different household tasks, and insisted that the quality of performance should be considered when measuring the value of unpaid work.

A participant suggested to Ironmonger that emotional support and companionship be added to the list of coding categories he had presented. Ironmonger answered that not all work should be compensated or given added value, since some work is pleasurable. He added that specifications should be used as tools, and that statistical bureaus need to do extra surveys. Cassels said the law does not always measure women's productive capacity, and noted that there have been calls for compensation for companionship and support. The management function has been measured in certain cases, with the court's award divided equally into direct labour and management.

A participant asked Cassels whether courts should follow up on insurance contracts. Cassels explained that technical factors prevent courts from referring to insurance, most notably that contracts are not used in most cases. He agreed that insurance contracts could serve as a tool where they are available.

Another participant commented that Cassels had not talked about the consultation and liaison that goes on between women in the community, and had made no reference to women's reproductive role. She stated that reproductive functions should not be seen as purely biological. Cassels agreed that reproductive capacity is an extremely important question, but stated that he didn't understand it well enough to comment. He said that the courts don't know how to address the question, either.

Shapiro observed that the discussion was going in two directions: while some participants were focussing on the need for data, others were emphasizing the importance of valuation. She suggested it would be difficult and "fraudulent" to put a value on unpaid work so early in the discussion, since a fixed value would imply some degree of consensus among participants.

An audience member expressed concern at the use of the term 'unpaid work', since women who work in the home receive food and shelter. "'Unwaged' is a more appropriate term," she said. If the value of unpaid work is to be determined according to market rates, she said, it should reflect the real value of actual tasks, so that women would

be remunerated for offering services similar to those of psychiatrists. Ultimately, the valuation of women's work should recognize everything they do, from household work to making and raising human beings.

A participant argued that time-use studies do not work because they are linked to cultural values, and to different understandings of work. She underscored the importance of addressing the question of value.

Ironmonger said the household should be seen as an entirely different economy from the market, and not just another sector connected to the market. He suggested that this shift in perspective would promote a better collective understanding of the household. A participant agreed that the household economy is not equal to the market economy, and said it would be dangerous to continue using past approaches in determining the value of household work.

Another audience member commented that the presentations had addressed market and household economies, but had ignored the relationship between people and the community. She said our systems of health, social services and law will only be sustained if we recognize the time and energy invested in relationships between people and the community.

CURRENT RESEARCH

Ann Chadeau

Ann Chadeau, Administrator of the Statistics Directorate of the Organization for Economic Cooperation and Development (OECD), began by expressing her satisfaction that unpaid work statistics are now gaining importance in many countries, after being considered a low priority in work programs of several national statistical institutes and international organizations. She pointed out that women are the major participants in this sector, and while the advantages of measuring this type of data have been clear since the 1920s, there has been no accounting system set up for the purpose. The measurement of unpaid work is relevant to employment statistics, she said, to the definition of the different roles of men and women in a society, and to the interdependence of the official productive sphere and the household sphere.

Chadeau presented the recent activities of the OECD concerning household work and production. At a meeting of experts in 1991, the OECD

Secretariat presented a document reviewing the definition and measurement of unpaid domestic work. Several areas of discussion were proposed, including the desirability of estimating the value of household production at regular intervals, whether a single set of standards should be formulated or whether a variety of methodologies should be used, what types of market activities could substitute for unpaid work, what definitions and what types of activities must be taken into account, and the availability of data for their measurement.

These topics were addressed in a series of papers contributed by Canada (The Estimated Value of Household Work in Canada), the USSR (Definition of Household Goods and Services and the National Accounts System), Norway (Value Added in Households), Poland (Unpaid Household Production), and Germany (Household Production and National Accounts). All delegates agreed to continue measuring the production of domestic work, and some felt a need to broaden the scope to cover all unpaid household activity, including self-help, mutual help, and family support activities.

At the time, several delegates felt it would be premature to adopt a rigid framework for standards, given the relative lack of experience in this sector. Instead, they called for regular production of estimates using a variety of approaches. Variables to be considered included salary rates, and the inclusion or exclusion of taxes, benefits, etc. Other delegates suggested that the group develop international recommendations to allow for worldwide comparisons.

Chadeau said direct measurement of non-market household output is the preferred method of accounting for unpaid work, except that there is a lack of adequate data on outputs for accurate measurement. In several countries, on the other hand, time-use data are available to measure labour inputs.

From this meeting emerged the idea of establishing a structure later known as the information network on non-market household production. She noted that the OECD had formed the network to collect and share information on current efforts to measure the production of unpaid work. This was to be achieved on a documentary basis, with inputs from government agencies, universities, and other relevant organizations. A list of 140 correspondents was drawn up, and a request for all available relevant documentation was issued in March, 1992. A bibliography containing 250 titles has since been produced. Subject areas include time-use data, quantitative data, macroeconomic national accounting

information, and micro data. The data collection exercise showed that Australia, Austria, Canada, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden and Switzerland had begun or will shortly begin the process of estimating the volume and value of unpaid work in households.

The long-term objective of the network is to formulate recommendations for future work, to ensure greater harmonization of methodologies. Chadeau stressed that the OECD is concerned with international comparisons; the organization is not directly involved with the capture of raw data.

Chadeau recalled a recent meeting of a working group on statistics of women organized jointly by the Economic Commission for Europe-United Nations and the United Nations for Training and Research on the Advancement of Women (INSTRAW) in Geneva, where EUROSTAT officials expressed great interest in the Network since Eurostat was developing a project framework for a European time-use survey. In the context of horizontal co-operation within the OECD, particularly in the Manpower Department, two working groups – one on the role of women in the economy and the other on employment and unemployment statistics – have shown particular interest.

An article published in the Spring issue of the OECD Economic Studies reviewed the treatment of non-market production in the 1993 System of National Accounts, examining issues of definition measurement, and what should be included in the official aggregates of GDP. Chadeau said the 1993 version clearly states that "all goods produced by households for themselves should be measured and included in the official aggregate." She pointed out, however, that the definition of production is somewhat conventional. Services produced by households for their own account are excluded except for housing services.

Chadeau mentioned the arguments developed against the inclusion of household services in the interim November 1991 version of the revised SNA, including their relative isolation in relation to markets, the extreme difficulty of estimating their value, and the potential negative impact on the usefulness of National Accounts to guide economic policy. But she pointed out an ongoing link between market production and household production – for example, when a furniture kit is purchased on the market, the household produces services to assemble it. She also noted that, in some cases, it is no more difficult to place a value on services than to establish a price for goods. As examples, she cited the activity of fetching water in countries where there is no water service and a meaningful price

would be difficult to establish, whereas the household production of a meal, where some of that meal would be sold, could be easily priced.

Despite arguments to the contrary, Chadeau said it is often important to know the monetary value of unpaid work. To illustrate, she pointed to the upsurge in household care for the elderly, representing a transfer of health services from the market to the household at a definite cost to the caregiver. Studies in England have shown that some women give up their professional work to care for elderly family members. The impact of these household decisions need to be measured in order to guide socio-economic policies.

Chadeau said there has also been a proposal to omit the total value of non-market household production from official aggregates, but to provide estimates alongside conventional aggregates as memorandum items or to integrate them in a satellite account. Germany, for example, will include household production values in a satellite system which is in the process of being set up. In general, she noted that methodologies for valuation vary significantly, and that the results are sensitive to the measures used for such factors as global substitution, specialist substitution, reference population, and salary rates. Results vary from 25-75% of the GDP. The OECD has undertaken to measure the sensitivity of results in relation to the reference population and wage rates used for valuation purposes.

A key variable affecting results is the variety of wage rates used. Chadeau cited an examination of 30 quantitative studies that revealed an astonishing range of values in this area. Some used an hourly rate as declared by the respondent, some were calculated using official sources, others used net rates or gross average rates, sometimes including compulsory social security contributions, and some used overtime rates or included benefits in kind. This lack of consistency has an impact on the value placed on unpaid domestic work and on its size relative to GDP.

Chadeau noted that the future for the OECD's work in this area is dependent on the availability of resources. If additional resources are obtained, the network will continue its analysis of methodologies, with the ultimate goal of formulating standards.

Luisella Goldschmidt-Clermont

The next speaker was Luisella Goldschmidt-Clermont, Associate Member of the Université Libre de Bruxelles in Belgium, and consultant to a variety of international organizations and

institutes, who praised Statistics Canada as a pioneering institution in the field of unpaid work statistics. Her presentation dealt with the monetary valuation of the unpaid work done in households.

Goldschmidt-Clermont began with a definition of "work", noting that "work is the input into production; non-work is input into personal activity." She pointed out that certain activities can be both, for example, baking a birthday cake for a family member. In this case, the cake itself is the result of production, but the cake is prepared as a gift for a loved one, making it a personal activity. Only the economic (i.e. productive) aspects of the activity need be considered in the economic valuation of the activity, but that requires defining the boundary between work and personal activities. Since 1934, she said, the "third person" criterion has been used - to be considered productive, it must be possible for an activity to be performed by someone else (a third person).

In her discussion of methodologies, Goldschmidt-Clermont explained there are many approaches to the problem of valuation. Two general approaches are the input and output valuation methods, and there are variants of each one. The output valuation approach attaches the price of goods and services in the market to similar household outputs. With this method, the value of unpaid work is unknown, but can be estimated by deducting, from the price of the output, expenses for intermediate inputs, any wages paid and capital amortization. What remains is the "returns to labour", which include remuneration to labour (wage) and operating surplus (profit). The input valuation approach attaches a market wage for labour to the unpaid work, and an estimate for the value of household output is obtained by adding expenses for intermediate inputs, any wages paid and capital amortization.

Goldschmidt-Clermont stressed that the output valuation method will "reflect the relative productivity levels of the household and of the market". Where businesses use large scale production and sophisticated technology they can produce at relatively low prices, so that the imputed returns to labour in the household would be low. Where households are at an advantage, such as in the provision of personal services, businesses produce at relatively high prices so that the returns to labour in the household would be high. With the input valuation approach, she emphasized, the method will not reflect relative productivity levels; the value of unpaid work varies with factors such as labour union strength and the capital intensity of market production, that influence market wages

and are only remotely connected to productivity in the household, if at all.

In using the output valuation approach, Goldschmidt-Clermont noted that data on the quality and quantity of household outputs (e.g. loads of laundry, number of meals, etc.) and prices for similar market goods and services would be needed. She said these types of data would not be readily available in most countries without ground-breaking work. The input valuation, or wage-based approach, is easier to implement, she said, as the required time use and wage data are more readily available.

In conclusion, Goldschmidt-Clermont discussed the important connection between uses and purposes and the choice of valuation method. For a number of purposes, such as comparing paid and unpaid work in total or for similar types of activities (e.g. transportation), time use or other data on physical quantities is sufficient, and a monetary valuation is unnecessary. She argued that output-based valuations provide conceptually sound and meaningful information for policy formulation, national accounting purposes and macro-economic analysis. Wage-based valuations provide useful and meaningful information for analysis of individual household behaviour and for use in the determination of court settlements, for example, in divorce cases.

Andrew Harvey

Andrew Harvey, an economist with St. Mary's University and a consultant to (INSTRAW), said he had long believed that economies were not developing in a balanced manner. Both rural economies and the economies of women tend to be invisible, he said, largely because strategies and mechanisms for measuring growth have made unpaid work invisible.

The focus for the measurement of growth has been increasing technology and/or structural shift from lower to higher productivity sectors. The transition from non-market to market economies has been uncharted, Harvey said. Most studies have unduly restricted change in the market economy which has been taken to be synonymous with growth. Such work has focussed on the role of paid work in contributing to growth. However, paid work is but a subset of productive work. The main tool in correcting the imbalance is time-use studies, which measure how people actually spend all their time - paid and unpaid. There have been slow gains in this area over the past 30 to 40 years.

Harvey provided a comparison of men's and women's work, both paid and unpaid. With the exception of North America, worldwide data show that women work more than men. In North America, each sex works roughly the same amount, but patterns of work differ: while men work at a relatively constant rate over their lives, women's work is more likely to fluctuate according to life situation. This suggests a need for data that can measure these complex, real-life situations, rather than short-term scenarios.

Unpaid work is often difficult to categorize, Harvey said. The formal economy – mainstream business and government bodies – has neat, relatively constant, conceptual boxes manifest in the System of National Accounts (SNA) – in which to place data. Though long neglected, the informal economy – i.e. small agricultural holdings, unpaid family businesses, street vendors and cottage industries – has become more visible and is being integrated into the SNA. However, there is another sector in the economy, the domestic subsistence sector. To date, in the domestic subsistence economy, there is very little data and scarcely even a conceptual framework for data collection. Subsistence agriculture, domestic work and child care, for example, should be included conceptually as domestic services. Such services as well as volunteer and other community work are also productive activities contributing to economic well-being. But Harvey said there are no standards for measuring all these variables, or for drawing statistical boundaries among all the productive sectors.

These conceptual issues are accompanied by a series of practical measurement problems. The instruments used to measure the market economy are not satisfactory, because they either omit or underestimate unpaid work. Household factors vary according to culture, and there are no recognized standards for comparison. In some large blocks of data that have been collected, gender differences have not even been considered, and women's work has been inadequately measured.

Harvey presented a table that showed average daily time use over a seven-day period for Canadian men and women over the age of 15. The table indicated that while each sex put in the same number of daily work hours, the men did substantially more paid work, while the women reported more unpaid time. Both sexes devoted equal time to education. Women allocated slightly more time to personal care, while men had slightly more leisure time.

Harvey stressed the need for consistent criteria for measurement of time-use data. In particular he noted the need for a standard international activity classification system. But he noted that such criteria will be difficult to develop when even the definition of work is not fixed. Part of the problem is that people undertake similar activities for different reasons, so that one person's work may be somebody else's leisure.

Time-use surveys and national data on unpaid work have been developed in a number of countries, including New Zealand, Australia, Canada, Finland and Germany, Harvey said. Currently, INSTRAW has undertaken to identify and evaluate time-use studies that have been carried out in selected countries – Venezuela, Tanzania, Nepal, Pakistan and Hungary. This information will then be used to develop pilot time-use measurement studies in the respective countries. A major objective is to establish consistent criteria for ongoing time use data collection by national statistical agencies. This data would be used to help improve on and expand beyond the existing economic accounts. Harvey said he hoped the results of the first phase of this project would be ready for presentation at a meeting in Osaka, being organized by INSTRAW and scheduled for March, 1994. The end result, he said, will be the establishment of a system for measuring and valuing unpaid work that will be useful in both industrial and developing countries. This will facilitate the proper measurement of economic growth and economic well-being.

Questions and Discussion

In the discussion period that followed the three presentations on current research, a participant asked Harvey why the table of men's and women's daily time use showed the two groups spending equal time on education, when women actually spent more. Harvey said conflicting or ambiguous results demonstrate the need for more effective evaluation techniques. Work activities are actually multidimensional, he said, and there is no doubt that follow-up studies can pick up more subtle distinction once baseline information has been gathered using a broad brush.

Another audience member expressed concern about placing an hourly dollar value on unpaid work, suggesting that it is unrealistic to equate the cost of a society-wide service to the wages that individuals would pay to have the work done. In the real world, the public sector would be the buyer and a vast program infrastructure would go along with the service purchase, so that present wage

equivalents would provide an unrealistic indication of total cost. These additional costs are already quite visible in seniors' programs and in child care, she said. The audience member said it is a "middle-class assumption" to suggest that program expenditures can be conveniently overlooked.

The next questioner asked whether the process of quantifying unpaid work would tend to keep women in unpaid positions, rather than opening the positions up to men. Luisella Goldschmidt-Clermont responded that it is necessary to know what is going on in market and non-market economies in order to measure the shift that is under way in society. "All political goals need data," she commented.

Another participant commended Goldschmidt-Clermont for her work. Since our wage system goes back to the early days of the industrial revolution and reflects the historical undervaluing of women, she said, the use of a "market wage" must be accompanied by the very large caveat that this wage incorporates an imbalance – otherwise, that imbalance will simply be perpetuated. Goldschmidt-Clermont responded that people are generally happy that invisible work is becoming visible, but unhappy because they don't like what they see. The problem, she said, is that we can't have it both ways. She noted that the participant's comment about historical bias in the market wage applied to every aspect of the economy, not just unpaid work.

A delegate commented that the process of placing dollar values on some work can have the paradoxical effect of devaluing other work. In Greece, she said, many women do piecework at home, where they are already doing housework. Measurement of the time spent on piecework tends to make the housework invisible. But another participant said it has been beneficial just to open the discussion of paying for unpaid work. For example, it enabled one union representative to argue that a Hispanic woman should be paid for on-the-job translation work that was previously included in her job as an unpaid expectation.

A participant asked what research has been done on work performed outside the home in informal social networks, and noted that Leroy Stone had gathered some data in this area. He said the data, crude as it was, indicated that people were working equal amounts of time inside and outside the home. Andrew Harvey said a German statistical bureau was looking into this important area, and that a Johns Hopkins University study had addressed it as well.

An audience member said it is impossible to generate good information on the market sector

without reflecting the contribution of the non-market sector. Another participant asked about age limits for unpaid work, noting that children in different countries are making economic contributions from a very early age. Luisella Goldschmidt-Clermont agreed that the contribution of children is a very important factor, particularly in international comparisons. Data collection will have to be flexible, she said, to catch such factors. In Asian countries, studies show that children do a great deal of household work, thus freeing women to work outside the home. Women are penalized at both ends of this equation, she said. But although women perform 65-85% of the unpaid work, she stressed that all that had been said about women applied equally to men.

A VISION ON THE FUTURE

Betty Havens

The Friday morning session began with a presentation by Betty Havens, Assistant Deputy Minister of Continuing Care Programs with the Manitoba Department of Health. Havens briefly summarized the major themes coming out of the previous day's workshops, saying criticisms of current data indicate a lack of adequate conceptualisation and measurement of those aspects of the economy which are not included in the paid labour market. These elements include the performance and qualitative aspects of activities undertaken for oneself, the household, family, community and society. The definitions of unpaid work are inadequate and confusing, she said, there are multiple stages and boundaries of activity, non-traditional production is poorly understood, and monetary valuation is problematic.

Time-use studies and total work accounting systems seem to be the most appropriate approaches to measurement, she said, but the elements are not put together systematically and there are no feedback mechanisms.

Participants in some workshops felt it was inadequate and inappropriate to use market/labour language for concepts in this sphere, and that this tendency is driving research efforts in the wrong direction. Havens said participants generally agreed that data should be collected repetitively, and some suggested it would be less costly to add questions to existing surveys rather than creating new and separate surveys.

Havens said people who perform work outside or in addition to the labour market feel they are undervalued and marginalized; this applies

particularly to women, homemakers, volunteers and newcomers. She stressed that everyone needs to feel they are of value to society.

Turning to the subject of health care delivery in an aging society, Havens noted that the largest consumers of health care are adults aged 65 and over. Women predominate in this population, and their consumption is disproportionate to their numbers. Women get sick more often, she said, but their survival rate is higher than that of men. However, this should not be interpreted as a crisis in the health care system.

Contrary to popular belief, she said families are not deserting their elders; at present, 80% or more of health care services to the elderly are delivered through informal networks. Women are the main caregivers, both in the formal and informal sectors, she noted. What is less known is that the present cohorts, now in their 80s and 90s, had relatively few children. Society is experiencing a "demographic thinning" of the potential support structure, with fewer adult children available to provide elder care.

"Increasingly, we will see the elderly caring for the elderly," Havens said. Problems associated with this phenomenon include limited ability on the part of some elderly caregivers to act as links between the family and the bureaucracy, as well as the impact on the health of the caregivers themselves. For this reason, it is particularly important to maintain support programs such as respite care and adult day care. Havens also stressed the need to account for aspects of elder care that are not remunerated, adding that if elder care were somehow linked to the corporate sector, an accounting system would evolve very quickly.

Future research in this area should focus on women's role in both the formal and informal health care sector, and on how that role may change. Havens said there is no evidence that women's morbidity is decreasing, nor that their use of health care services will decline in the future. She said women will likely continue to be major participants in the formal care system, although it is not yet clear whether they will continue their role in the informal network. Havens noted that it is often the woman who gives up her income and portions of her pension in order to provide elder care, and emphasized there is no equity in such a system.

These factors suggest the need for several changes to the current health care system. Services and programs must be provided to support the informal caregiver, including education, in-home technology and training programs for men, and the pension system must be reformed. Employers will

need to implement benefits such as elder care leave. There is also a need for more detailed data, Havens said. While a few studies have looked at the health of women working in the formal health care system, and many more have assessed stress among informal caregivers, there is a lack of epidemiological research on women who perform both formal and informal care activities.

Regula Herzog

Regula Herzog, Research Scientist at the Institute for Social Research and the Institute of Gerontology, and Professor in the Department of Psychology at the University of Michigan, explained that her presentation would deal primarily with methodologies, with a focus on alternative, "stylized" measures of time use.

Herzog noted that typically surveys are limited in the length of interviews and the number of repeat interviews, and thus it is not always possible to collect the kinds of data used in Statistics Canada's time-budget surveys. While time-budgets are considered to be an excellent method, Herzog noted that problems remain in determining the right time units and appropriate sampling, and in capturing secondary and tertiary activities.

Stylized methods attempt to measure time use by more compact measurement, but do not use vague quantifiers like "often" or "sometimes", Herzog explained, nor do they measure monetary value. One of the major challenges with stylized measures is to understand the cognitive process and motivations underlying the responses. For example, some respondents may be reluctant to report activity associated with the underground economy, others simply cannot remember the details. Another concern is that stylized measures – like time budget measures – focus on behaviours, and fail to capture cognitive or emotional input, which are usually done in parallel to other activities.

Herzog then described some of the cognitive processes underlying stylized time use measures. Paid work is much easier to define than unpaid work, Herzog noted. If activities are not clearly defined in a survey, the respondent will impose his or her own understanding of a term. For example, housework could mean laundry, cleaning, groceries, child care, yard work, or any number of other tasks. One option is to list all the definitions in the question itself, but long questions are hard to understand and remember. Surveys could be designed to list all activities and ask for yes/no responses, as a means of gathering accurate information and improving the respondent's recall

for the question on total hours. Herzog said the ability to recall time spent on an activity depends largely on the frequency and regularity of the activity; most people find it easier to provide accurate estimates for actions that are only performed once in a while or, if frequently, on a regular basis. Another problem lies in the accurate recall of time spent on seasonal activities like gardening, home maintenance and yard work. One solution is to break the activity down into its component parts.

It can also be difficult to record time spent on activities that are done simultaneously, such as housework and child care. Herzog said some respondents will report the activities as if they were separate, resulting in high estimates for each. If it is important for the study to capture time spent on a particular activity, this activity should receive specific focus in the survey instrument. On the other hand, if a study is designed to track total hours, there must be some attention to and correction for, overlap.

Herzog went on to discuss response scales, noting that open-ended questions require the respondent to remember and report an absolute number of hours and often lead to simplifying estimation procedures. On the other hand, if range categories of annual hours are used, the respondent may assume the surveyor already knows what time frames are appropriate for an activity, and may simply choose what looks right.

There is also a need for caution in drawing comparisons between stylized and time-budget methods from existing studies, many of which lack scientific vigour, Herzog said. She noted a recent Statistics Canada comparison where the same people were surveyed using both approaches, as an example of the kind of research that would be useful to do.

Herzog also described different methods of gaining insight into the cognitive processes of respondents. Interview probes can be used to verify a respondent's answer, for example, by asking whether an answer included grocery shopping. Respondent verbalizations allow the researcher to track the respondent's thinking in answering a question. Research has shown that the respondent's choice between an estimate or real-time recall depends on the length of time under study.

In conclusion, Herzog reiterated that stylized methods are the most appropriate for surveys where only relatively little interview time can be devoted to the measurement of time use, especially when researchers also need additional information on the

respondents. The method has its limitations, due mainly to the complexity of the activities and to the limits of the human cognitive processes, but it is still useful to place people on an ordinal scale of time use. Herzog called for further research on cognitive processes to pinpoint the measurement problems and to learn how survey techniques can be modified to overcome some of the limitations of stylized measures and maximize their promise.

Questions and Discussion

In the discussion period, a participant asked about methods of accounting for overlapping activities like management, and linked the issue to the value debate that had occurred in some of the previous day's workshops. Herzog stated that stylized measures are best suited to capture the overlap because they are not constrained by a 24-hour format. This difference in structure means that questions can be designed to isolate this kind of activity.

A participant asked Herzog if she was dismissing time-budget surveys. He noted that time budgets allow for data compression, which is not possible with stylized methods, and suggested that the five-minute time-budget is useful, although questions about satisfaction received would be appropriate for activities like caregiving. Herzog said it would be appropriate to incorporate timebudgets in limited surveys, and suggested it might not be necessary to follow up on satisfaction for every five-minute period.

A participant said he was pleased to hear that time units are evolving as an important measure of unpaid work. He stated that the phenomenon is changing rapidly and suggested that regular, consistent and frequent time-budget surveys that categorize respondents could be incorporated into other methods. The result, he said, would be the best of both worlds.

Herzog replied that aggregate figures are changing slowly, and suggested that time-budgets without additional information would not account for that change. For example, caregiving will increase if a family member has a stroke, and it will be easier to separate individuality and change with more frequent measures. At the same time, she said she would love to see a condensed version of the time-budget. Another participant commented that the measurement of time use should be regular and consistent, but not necessarily frequent. It should also be inclusive of the total population, and be easily incorporated into other surveys.

Robert Eisner

U.S. economist Robert Eisner began by saying how pleased he was to attend the conference. He noted that the need to measure unpaid work is still being discussed in the United States, whereas in Canada the question is how the measurement can be done as efficiently and effectively as possible. He agreed with Mary Collins that women's work must be made visible, and added that its invisibility has had serious implications for policy-making. He also echoed Ian Macredie's statement that the definition of unpaid work must be broadened.

Eisner said the key argument for measuring unpaid work is that Gross Domestic Product only counts the value of a final product when society needs a complete picture of its total output and productivity. When thinking in terms of non-conventional measures, "a final product, he explained, is one that has been purchased and resold." But since most household product inputs are not purchased, household production is thus not largely counted in the GDP. Figures show that by excluding nonmarket activity, conventional measures miss 25-50% of all economic activity. Final output in the National Accounts is exaggerated, and the major consequences of the movement of women between home and the labour force are missed.

To illustrate, Eisner cited the example of a woman who takes a job in the labour force and has to stop caring for her child during the day at home. The Gross Domestic Product includes her employment income and child care payments, but does not account for the lack of child care in the home. "There is a contradiction between what statisticians say and what reality is," he said. "If the loss of services and income isn't recognized, the measure of final output is distorted."

Eisner said this emphasis on market labour also affects the measurement of productivity growth. When women secure employment in the market, they do so because they hope to earn more money. The theory of choice indicates that women entering the labour force do so because they believe they will be better rewarded for their productivity in the labour force, even after taxes, than for their productivity at home. However, the new women in the labour market generally earn less than men; as a result the average productivity of men and women **in the market** may decrease even though average productivity of those in and out of the labour force goes up.

There is growing concern about a decrease in gross private domestic investment and saving, but Eisner said this may also be a matter of the

measurement of total household output. People have begun watching more movies at home instead of attending movie theatres, and this has affected the calculation of gross domestic private investment. The purchases of VCR's are not counted as investments.

For these reasons, among others, he said a measure equivalent to GDP must be found for nonmarket activities. He suggested applying the third-person criterion to non-market activity to help identify production: if an activity can be assigned to a third person, it may be included in output. Thus, if a taxi driver could be hired to bring a family member somewhere with the same useful services as if the person drove herself, then the person's driving services might be included. If a person drives for pleasure then the substitution of a third person driver would eliminate the pleasure and the self-driven services would not qualify. Eisner said he preferred to value unpaid work according to the equivalent output in the market, so that the cost of family care to an elderly parent with medication at home would be comparable to the cost of administering drugs by a paid visiting nurse. "Once the market output has been calculated, you need to subtract the inputs that have gone into the output," he told participants, "and you're left with the wages."

The output of market activity is often valued according to its price, but Eisner suggested this may not reflect what many of us consider its "value". It is often extremely difficult to measure something which is vital, such as a mother's care for her sick child. A health practitioner can bill for his or her work, but that may not give the best indication of the "value" of a mother nursing her child back to health. We may have to recognize that the best statisticians can do is give us interpersonally measured market values.

Eisner said the value of women's management skills in the home could be captured in the value of output, as it is in the cost of a meal at a restaurant. If the value of a product is difficult to establish, a correct approach would be to determine the value of its labour input based on the cost of comparable labour in the market. If the value of unpaid household work is calculated in this way, he added, it is important to base the estimate on gross wages, that is gross of income taxes.

There has been some concern about the timing and frequency of additional output measures. Eisner said it is important to know what type of work is being done, but suggested that frequent time-use surveys are not necessary. The total amount of work in a household does not change much over time, except as women move in and out of the labour force.

Eisner admitted that the System of National Accounts has limitations as a basis for valuing women's work. It reflects how people are paid and the final products they produce, but it can't measure happiness. It doesn't assess the value of unpaid work. It can quantify the difference in salaries and paid work between men and women, but underestimates the total amount of work done by women in the course of a lifetime. "By omitting women's non-market labour, we ignore much of the work of more than half of the total labour in the world," Eisner said.

Questions and Discussion

In the discussion period, a participant noted that emotional relationships are fundamental to the household, and asked if it is possible to reflect the value of such a relationship in the valuation of household work. Eisner answered he didn't know how emotional factors could be measured, but suggested that the value of paid work in a nursing home could be one useful measure for unpaid health care work at home. The participant stressed the importance of one special person who can meet the emotional needs of a spouse, child or parent. Eisner suggested that the cost of private care in the home might be the closest equivalent.

Another participant stated that statisticians are not indispensable, whereas women in the unpaid labour force are. She claimed she had been discouraged from attending the conference because of its technical nature, but had insisted on coming. She expressed frustration that Statistics Canada does not qualify home managers' work as productive. "We are the labour force. We are the economy," she said. "You need to understand what you are measuring." She said she appreciated the work that Statistics Canada and other government agencies are doing, but stressed that they must recognize the enormous contributions of women.

An audience member said it is vitally important to accurately measure women's productivity, even though it is difficult to value their unpaid work. She said that the System of National Accounts engages in an unscientific act when staff try to calculate the value of unpaid work or volunteer activity. Eisner agreed that it is difficult to measure the real value of non-market activity, but added that a little knowledge is better than absolute ignorance.

A participant said value is multidimensional, and urged statisticians not to abandon the calculation of value for a market approach, even though it poses difficult challenges. Eisner agreed that there are many ways of measuring value, and encouraged participants to explore other avenues.

Regula Herzog said she used the stylized and time-budget approach in different ways. As a psychologist, she said she was more interested in looking at data over time to study social changes, and preferred using relatively brief surveys that could be conducted more frequently. She agreed that different methods will be useful in developing a broader information base for future use.

A participant agreed on the need for a vision for the future, noting that the field of statistical measurement has become more viable over the past 50 years. He said the development of labour statistics has helped governments manage more effectively, and suggested that this meeting could be a turning point in both Canadian and world affairs. He noted that Statistics Canada has been working to refine its measures of opportunity cost and replacement cost, and is prepared to move forward from that starting point.

An audience member stressed that the Gross Domestic Product should reflect women's enormous economic contribution. Women save untold health and social service costs by caring for the elderly, the young, and the sick, but many men have yet to recognize this work. When women return to the labour force after working at home, they often experience career setbacks, as well as reductions in salary and pension benefits. "It is imperative that women's invisible work be made visible," she concluded.

CLOSING REMARKS

Ian Macredie thanked organizers and participants for making the conference a success, and expressed special gratitude to all those who had spent many, many hours of paid and unpaid work organizing the conference. Bruce Petrie added that Statistics Canada needs and appreciates the help and contributions of a wide range of practitioners in shaping its research and approaches on unpaid work. The conference brought forward a range of different opinions and challenges, he said, and a number of issues are closer to resolution as a result.

PART II

FULL PROCEEDINGS

A. WELCOME OF CONFERENCE PARTICIPANTS

Ivan P. Fellegi
Chief Statistician of Canada

Let me begin by adding my welcome to you at this Conference on the Measurement and Valuation of Unpaid Work. To some, I welcome you as well to Ottawa and to others, a warm welcome to Canada.

A conference, by definition, is designed to provide for an exchange of information among all of the participants and this conference was certainly planned with that objective in mind. But we at Statistics Canada, and ultimately, the users of the Agency's data, hope to profit particularly from this exchange.

The measurement and valuation of unpaid work is a field of statistics which is far less developed, and about which there is far less common understanding than most others, for example, the fields of consumer price measurement, labour market monitoring or the industrial output. Nevertheless, a great deal has already been accomplished by government researchers and by scholars in Canada and abroad. Our primary objective in hosting this conference, with our colleagues from the Status of Women Canada, is to acquire as much as possible of the knowledge and experience of those who are working on the frontiers of the measurement and valuation of unpaid work. In this way, Statistics Canada, at the very least, will avoid costly and time-consuming developmental and experimental work which would only serve to repeat what has already been done or which is already known elsewhere. We are committed to progress in this field and what we learn at this conference will considerably accelerate the rate at which we can achieve such progress. This conference, then, is not about whether unpaid work should or can be measured and valued, it is about the most effective and efficient ways of going about it.

The fact that out of two and a half days, one full day is devoted to 14 discussion-oriented workshops means that we want to hear from, and be heard by, all of you. Over the course of this conference, we will individually be performing several roles. At

some points, each of us will see ourselves as teachers, at other times as students; at times novices, at other times experts. In addition to sharing our experiences in the field of measuring and valuing unpaid work, those of us at Statistics Canada hope to use this conference to communicate an appreciation of the methods used by national statistical agencies and the challenges which we face in satisfying the diverse and sometimes conflicting needs of our multitude of data user communities. In other words, we hope that over the next three days we will share with you the seemingly mysterious and frustrating process of generating statistics.

Discussions will cover such topics as developmental work on accounts which are satellites to the System of National Accounts, on alternate measures of unpaid work, on the design of time-use surveys, the measurement of household management, the use of statistics on unpaid work in civil litigation, and the links between paid and unpaid work. I am confident that these discussions will be invaluable to us here at Statistics Canada in future program planning and development. I am optimistic as well that the discussions here may have an influence on what happens in other countries. It is encouraging to note that increasing numbers of countries are starting regular time-use surveys, an essential first step to creating a program of unpaid work statistics. I cite Australia as an example, although there are others. This climate of growth in the measurement and valuation of unpaid work internationally suggests that it is time to start thinking about standardized definitions and measurement techniques whose adoption by many countries will facilitate international comparisons. I hope that this conference will serve as one of the initial, and obviously very tentative, first steps towards the development of international standards and guidelines.

Later this morning Ian Macredie will be enumerating the extensive, but not always recognized, work which Statistics Canada has already contributed to the field of unpaid work statistics. He will also be describing our planned work program for the immediate future. What I would like to do is to spend the next few minutes outlining in general terms some of the challenges which lie along the path of progress in this field.

Among these challenges is the necessity of developing and using techniques which are not now a standard part of the statistician's stock in trade. Many of these techniques, especially in the area of

quantifying the value of different kinds of unpaid work, come not from statistics but from the social sciences, particularly economics. Adopting these techniques is further complicated by the fact that even among economists, there is a lack of agreement on which is the most appropriate version of any given technique.

Let me give you an example taken from the specific area of valuing household production, namely, putting a monetary value on the unpaid work done in households. As some of you will know from the studies already published by Statistics Canada, unpaid labour in the household can be costed using a variety of methods. I'll confine my example to just two of these methods. One way is to value it by the rate of pay that the person doing the unpaid work earns, or could earn, if he or she spent the same amount of time in the paid labour market. Another approach is to decompose the unpaid labour value into its component activities and to value each of the activities according to the rate of pay in the paid labour market of persons doing similar work. Meal preparation, child care, and home repairs are well known examples of the kinds of work that can be valued using either of these techniques. Parenthetically, I won't even begin to address the quantitatively significant issues of whether either of these valuations should be pre- or post-tax or whether there should be adjustments for perceived gender biases in the paid labour market. The choice of methods is important since we have demonstrated that the values obtained differ considerably according to the method chosen.

From the statistician's perspective this issue poses particular challenges. Firstly, it involves inferring something rather than measuring it directly. In other words, we infer a money value for the unpaid work since by definition there is no market transaction to give it a price. Such inferences appear as relatively small parts of existing statistical systems, such as the inferred rental value of owner occupied housing in the measure of Gross Domestic Product, but there is no precedent for a system of statistics based almost entirely on such inferences. Secondly, the choice of methods does not depend on recognized statistical criteria relating to data quality. We cannot choose either method on the grounds that one produces data of higher quality than another. This is in contrast to the way that we are accustomed to choosing, for example, between two sample designs on the basis of lower bias and variability, or choosing between one survey processing system and another on the basis that one detects more errors than the other. The choice between the two valuation methodologies will eventually have to be made, and rather than doing so by strictly scientific

criteria, the choice will be made through consultation with the user community with a view to establishing a preferred method among most of the users. Such consultation takes time and resources - the example I used covers only a tiny fraction of the choices which can only be made through consultation with the user community.

Another considerable challenge is the development of simplified questionnaire design methodologies. In spite of Statistics Canada's widely recognized expertise in questionnaire design, it will require a great deal of testing to refine simple question sets to the point that they will generate meaningful and credible statistics. This is an interesting example of the need to derive simple questions to approximate what has already been accomplished through lengthy, detailed questionnaires. Specifically, Statistics Canada has come a long way, and largely through international co-operation with time-use survey experts, in increasing the accuracy with which we can measure time spent in all types of activities, paid and unpaid. But this greater accuracy has come at the expense of greater detail and complexity in the design of the questionnaire. Such complex questionnaires are appropriate when measuring the use of time is the only thing that a given survey seeks to do. But when the survey has to serve other purposes simultaneously, then such detailed questioning is simply not feasible. Yet, if unpaid work is to be measured with reasonable frequency and using large samples permitting some detailed disaggregations, then dedicated surveys carry too high a price tag.

We believe, then, that a great deal of development work remains to be done to come up with a limited number of questions which could be used on major ongoing surveys which serve a wide range of important uses. The highest profile example of this, and the one for which Statistics Canada has been subjected to a great deal of unjustified criticism, is the Census of Population. Work directed at developing suitably concise and practical Census questions on unpaid work, begun by Statistics Canada in the 1970s, is continuing as we prepare for the 1996 Census and I am sure that our efforts in this area will be discussed extensively over the course of this conference.

Another challenge we face is the new information collection which will have to be undertaken if we are to meet all of the data requirements dictated by a system of statistics on the measurement and valuation of unpaid work. Some of these new data requirements are already known, others will become evident only after further research and development. Let me give an

example. Statistics Canada is proposing to publish annual estimates of the volume and value of household work. These would be similar in nature to the estimates published last June. However, such estimates depend critically on having data both on the volume of unpaid work, currently available only from time-use surveys, and on earnings by detailed occupation, currently available only from the Census of Population. Both of these sources are available only once every five years. How adequate other annual sources will be in supplying the required annual updates remains to be seen, and to the extent that they are inadequate, requests for resources for enriched surveys will have to compete with all of the other claims on Statistics Canada's shrinking budget.

Another example of new information requirements is the data required to estimate the value of household production. Household production is the output which arises when unpaid work, the services of household capital and intermediate goods are combined. For example, a meal results when the time of the people preparing it is combined with the equipment which they use, such as a stove and a refrigerator, with the ingredients, generally purchased at a retail outlet. In other words, to estimate the value of household production we need data not only to place a value on the amount of unpaid work done, but we also need valuations for the services of the stove and refrigerator and value of the intermediate goods consumed. You might well ask, why go the extra step to measure household production? Wouldn't it suffice to produce data on the volume and value of household work? The answer is that the user community has told us that even a basic program of statistics on unpaid work

should include the core elements of a set of satellite accounts, i.e., satellites to the System of National Accounts. In order to produce even basic satellite accounts which will have standing comparable to the existing System of National Accounts, we need to be able to produce estimates of the value of outputs in the non-market sector which reflect the value of all of the inputs. Some possible sources of data on inputs other than labour exist but their adequacy is far from certain. The complete system of unpaid work statistics includes the voluntary work sector and there the data requirements for non-labour inputs are even more challenging.

Finally, it is appropriate that I say a few words of dedication concerning this conference. The idea was originally proposed by the late Dr. Edward Pryor, whose distinguished career at Statistics Canada ended prematurely with his death last fall. Ed was tirelessly supportive of expanding our program of unpaid work statistics and I am sure that he would have been pleased indeed to have seen the impressive array of speakers and participants that I have the pleasure of addressing today. As an immigrant to Canada himself, Ed always brought an international perspective to our deliberations.

In conclusion, I wish you a pleasant and stimulating three days of learning and professional enrichment. May the conference also be an occasion for creating new personal networks which will help all of us to further our joint interests in unpaid work statistics after you leave. Thank you for attending, particularly those of you who have travelled great distances to join us. Best wishes for a successful conference.

B. OPENING REMARKS

The Honourable Mary Collins Minister responsible for Status of Women Canada

Completing the Picture: Accounting for Unpaid Work

Introduction

Good morning. I am very pleased that statisticians from around the world and representatives of Canadian women's groups have come together to exchange information on the benefits and challenges of measuring and valuing unpaid work.

I would like to take this opportunity to commend Chief Statistician, Dr. Ivan Fellegi, for Statistics Canada's decision to devote additional resources and person-years to the measurement of unpaid work and household production in Canada. I view this as a very positive step for women.

Improving the measurement and valuation of household work has long been an interest of both my department, Status of Women Canada, and of our national statistical agency, Statistics Canada.

Statistics Canada began estimating the value of housework performed in Canada as early as 1971 with research that put the agency on the leading-edge of work in this field.¹

Currently - in addition to this conference - Statistics Canada is collaborating with Status of Women Canada on the development of an appropriate questionnaire on unpaid work for inclusion in the 1996 national census. I know that my officials are pleased to be working with such a forward-thinking department on this initiative.

The importance of unpaid work

A woman once said to me that there are three kinds of work:

"Part-time work, full-time work, and all-time work. Women's work is all-time work."

This describes so well women's sense of the fullness of our lives. The fact is that women's lives are very full, whether we work in the paid labour force or work at home, or a combination of both. And much of that fullness is due to the countless hours of unpaid work we perform in the home.

All of us - both women and men - engage in unpaid work. And so we all have something to gain from the outcome of this conference. But as Minister Responsible for the Status of Women, my

focus is on women's concerns. What I would like to do this morning is to provide you with a women's perspective on the issue of unpaid work.

But I'd like to preface my remarks with the following caveat. Women's interpretations of their lives and their work differ from one another widely. We come from varying backgrounds and follow different life paths. In all the work we do on this issue, it is important to respect this diversity.

As Dr. Fellegi has indicated, one of the challenges in measuring unpaid work is in fact defining it. One way of looking at paid and unpaid work is to consider how we would categorize labour in a primitive society where, say, men were mostly engaged in fishing to supply food to the village, and women were primarily responsible for cleaning and cooking the fish as food.

Clearly, both women and men are working in this situation. But money is not changing hands, therefore, under the current accounting system, there is no paid labour - only unpaid. In time, however, with excess fish to sell, men begin to earn money for their labour, while most women do not, although they continue to work. Men begin to "count" economically under our measurement systems, while women remain largely invisible. Perhaps this helps to explain how women today feel about their unrecognized contribution to the marketplace in terms of unpaid labour.

Estimates of the amount of time women devote to unpaid household work, for example, vary. But taken as a whole, these hours add up to a staggering amount of productive activity that is the underpinning of our economy, and without which the world of paid work probably could not function.

Unfortunately, the significance of unpaid work to our economy is seldom formally acknowledged in this way. Women share in creating Canada's prosperity as a nation: but we do not share proportionately in its wealth.

This conference is part of a process that may change this situation.

For some time now, Canadian women and, indeed, women in many parts of the world, have been asking for greater recognition of the value of the enormous contribution they make to society through their unpaid work in the home and the community.

But getting Canadians and their decision-makers to recognize the significance of women's unpaid work starts with a reliable assessment of its impact on our economy. Only then will we make

real progress on changing attitudes towards women's roles within society.

The development of measuring unpaid work as an issue

Concern over the lack of value attached to women's unpaid labour – and the inequities that flow from this fact – is not new. The American social critic and writer, Charlotte Perkins Gilman commented on the situation as far back as 1900.²

In a volume entitled *Women and Economics*, Gilman wrote that the labour of women in the home enabled men to produce more wealth than they otherwise could. In this way, she observed, "women are economic factors in society."³

But it was not until the 1970s that the contemporary grass-roots movement began its work to gain recognition of the value of women's unpaid work. Since that time, groups such as the International Wages for Housework Campaign – started in London, England in 1972 – and others in Canada and around the world, have worked tirelessly to bring this issue to the attention of both national governments and the international community.⁴

I am delighted that some of the women who have worked long and hard to raise awareness of this issue in Canada are able to be with us today. Among them are representatives from a new group in Canada called Canadian Alliance for Home Managers, which formed in March 1993 to address the issue.

- Recently their work has been given a real boost by the Supreme Court of Canada ruling on the *Peter vs. Beblow* case. This decision – which compensates a common-law partner for her years as a homemaker – provides a ground-breaking precedent on valuing unpaid work that is most encouraging to women.⁵

As I mentioned earlier, in Canada – and in some parts of the world – the effort to measure unpaid work has already begun. Statistics Canada is already a recognized world leader in this area and we hope this conference will further accelerate our progress.

In addition to the work of Statistics Canada, the Canadian government has also demonstrated its commitment to this issue through its work in two international fora.

Canada supports the implementation of the Nairobi Forward-looking Strategies on the Advancement of Women, adopted at the 1985 World Conference on Women. A blueprint for women's international equality by the year 2000, the Forward-looking Strategies call on all nations to ensure that women's paid and unpaid work is quantified and valued.⁶

And in 1990, Canada played a lead role in the development of the Ottawa Declaration on Women and Structural Adjustment, adopted by Commonwealth Heads of Government in 1991. That agreement makes specific mention of the need to improve the collection of data on the economic activity of both women and men.⁷

Why is it so important to collect this information?

Making women count – a woman's perspective

According to the United Nations, women constitute half the world's population but we put in two-thirds of the working hours. We grow half the food but we receive one-tenth the wages and own a mere one percent of the world's property.⁸

A study commissioned by the Carnegie Corporation and the Ford and Rockefeller Foundations has estimated the value of women's unwaged work at \$4 trillion dollars worldwide.⁹

In Canada, the latest Statistics Canada estimates for the value of household work – using data from 1986 – ranged from 32 to 39 per cent of Canada's Gross Domestic Product.¹⁰

On a day-to-day basis, this work has a tremendous impact on the lives of women.

Studies show that women employed in the workforce put in a "second shift" at home. The results of studies vary, but it is estimated that women in the workforce put in between 25 and 35 hours per week on domestic tasks, child care and errands, in addition to the hours spent on the job.¹¹

Women working exclusively in the home devote anywhere from 28 to 56 hours per week to these responsibilities, depending on family composition.¹² And in other parts of the world the figures for women's unwaged work are much higher.¹³

In almost all cases, women spend significantly more time engaged in unpaid work than do men. In figures released last week by Statistics Canada from its 1992 General Social Survey it was estimated that

men spend 2.6 hours on unpaid work each day while women spend 4.5.¹⁴

The contribution by women to the communities in which we live is enormous. And it is essential. Yet, around the world, the majority of women's work goes unrecognized. It is not incorporated into formal economic theory. It is not recorded in the statistical records kept by most countries. And it is not calculated into Gross Domestic Product.

This is in part due to the influence of the United Nations System of National Accounts - or UNSNA. In use since 1953, the rules of the UNSNA are widely accepted as the standard for the production of national accounts and labour force statistics. As you know, these figures are then used to monitor and assess economic development, and to prepare and implement economic and related social policies.

I believe Statistics Canada is one of the few national statistical agencies that is devoting significant resources to developing accounts to measure unpaid work.

The UNSNA establishes what is known as the production boundary. On one side of the boundary, productive activities which have a market value, or are paid for, are counted as economic activity. And on the other side, productive activities which are not financially rewarded - such as housework - are not counted as economic activity. Which means that most of these activities are not recorded at all.¹⁵

Therefore, there is no accurate record of economic activity for the unpaid hours women spend on:

- child care
- elder care
- food preparation
- household work
- book-keeping, or
- volunteer work.

In other words, if there wasn't a woman available to perform these tasks for free and the services were paid for instead, they would be recorded as economically productive activities.

To put it another way, try finding someone other than a family member to clean your house for free. Or ask a restaurant to prepare a meal at no cost to you. Perhaps this is the origin of the expression "on the house"!

As most of us know, this simply does not jibe with reality.

In much of the world, women play an important role in agricultural production - particularly for family consumption. And yet because of the unwaged nature of this work, much of women's agricultural labour goes uncounted.¹⁶

Or in Canada, when a person helps to dress and care for a paraplegic - perhaps in an institution - and she is paid for her time, she is counted as working. But if she cares for that person or an elderly relative in her home, she is counted as not working.

In the developed world, both full-time homemakers and women who participate in the paid labour force, perform thousands of small tasks each year to the benefit of their households and communities. However these tasks are seldom enumerated and accounted for as productive activity. And when they are enumerated, they do not as yet appear in the National Accounts.

For women, the implications of this invisibility are enormous. It belittles our role in the economy and society. It chips away at our self-esteem. It leads policy-makers to overlook the impact of decisions on our lives. And it makes it difficult for women both in the workplace and at home to achieve equality in our society. For this reason the measurement and valuation of unpaid work is an important equality issue for women.

That's why this conference will make a vital contribution to women's equality.

With the help of the participants at this conference, we hope that the developmental work being done here in Canada will result in changes to women's lives.

Completing the picture

The time has come to complete the picture of our economy and our society. Already public consciousness is shifting in this direction. It's my sense that in Canada there is increasing awareness and acceptance of the value of unpaid household work, child care and family care to the economic well-being of the family and to society overall.

With an accurate assessment of the value of unpaid work performed by both women and men to our economy, we can make decisions which affect the economic, social and environmental future of our country based on a full understanding of our nation's activities.

A complete measure of women's contributions to the care of the young and the elderly, for example, may impact on the way economic and social policies are developed in the future.

As I mentioned earlier, we are already seeing the impact in the courts of greater recognition of the value of women's unpaid work, in terms of monetary compensation to women following marriage breakup. My department, Status of Women Canada, and the Department of Justice have worked closely to develop an economic model to assist judges and lawyers in the determination of spousal support for women who have taken time away from the paid work force to care for their families.

A more complete picture of economic activity could also have implications for our tax system. It could, for example, result in reviewing the benefit system to ensure that it equitably reflects the contributions of taxpayers working in both the paid and non-paid work force.

Employers too, are beginning to recognize the implications of women's disproportionate responsibility for work in the home. Employers interested in increasing the productivity of their employees by enabling them to better balance home and work responsibilities would be able to design more accommodating policies with a clearer picture of various activities.

I also believe that greater awareness of the value of unpaid work will help shape a redefinition of gender roles, to include a more equitable sharing of household and family responsibilities – a development that would benefit both men and women.

Partners in completing the picture

This conference is an important step toward all these possible changes.

It is the hope of Dr. Fellegi and myself that your discussions at this conference will help facilitate the goal of completing the picture of Canada's economic activity.

This is a working conference. Its success will depend on the active participation of everyone involved. Each of us has something to add. As Doctor Fellegi said earlier, we are all experts and learners at this conference.

The boundaries between work and leisure activities are not always easy to define. But in working toward these objectives, it is absolutely essential that we work together to ensure that the boundaries of measurement accurately reflect women's experience – in all its diversity.

I invite you to seize every opportunity to ensure that the data on unpaid work produced by Statistics Canada are used whenever they are, in your mind,

applicable. The power of statistics lies not in the numbers themselves, but in the use of those numbers. Statistics Canada can only make the numbers available: it is up to us all to be vigilant in seeing that decision and opinion makers apply those statistics.

In closing, I would like to encourage you all to contribute your experience and your ideas actively and fully in the sessions ahead.

With your participation we can complete the picture of women's and men's experience. We can add the missing brush strokes to the mural of our lives and make visible what has hitherto been hidden and unrecognized. As we do so, we will be helping women to take a vital step towards equality. Thank you.

Notes

- 1 Chris Jackson, "The Value of Household Work in Canada, 1986", Canadian Economic Observer, Statistics Canada, June 1992, p. 3.1.
- 2 Charlotte Perkins Gilman, Women and Economics, (1900), in Rosalie Maggio, The Beacon Book of Quotations by Women, 1992.
- 3 Gilman, op. cit.
- 4 "L.A. Pair Seek Wages for Women's Unpaid Work", Los Angeles Times, July 28, 1985; "Women's work is never paid: but Selma James is campaigning for this to change", Montreal Gazette, date illegible.
- 5 "Courts recognizing value of work in the home", The Star Phoenix, April 2, 1993.
- 6 "L.A. Pair Seek Wages"; Status of Women Canada, Fact Sheets on the Nairobi Forward-looking Strategies, p. 89.
- 7 "Ottawa Declaration on Women and Structural Adjustment", Item 7(vi).
- 8 Honourable Mary Collins, Minister Responsible for the Status of Women Address to the House of Commons on the Occasion of International Women's Day, March 8, 1993, Hansard, p. 16625.
- 9 Press Release, Congresswoman Barbara-Rose Collins Holds Briefing on Bill to Count Women's Unwaged Work in GNP", February 9, 1993.
- 10 Chris Jackson, op. cit.
- 11 Statistics Canada, Initial Data Release from the 1992 General Social Survey on Time Use, April 1993, Women in the Workplace, March 1993, p. 53; Nancy Mandell, "Juggling the Load: Employed Mothers Who Work Full-Time for Pay", in Few Choices: Women, Work and Family, 1989, quoted in F/P/T Joint Working Group on Workers with Family Responsibilities, "Women and Men in the Workplace: A Discussion of Workplace Supports for Workers with Family Responsibilities", Unreleased Draft Paper, March 26, 1993; Previous SWC speeches.

¹² Women in the Workplace, op. cit., p.53-54; Statistics Canada cited in Minister Collins' speech to PC Women's Caucus, January 26, 1993.

¹³ The World's Women, 1970-1990, United Nations. 1991, pp. 81-83.

¹⁴ Women in the Workplace, op. cit.; The World's Women, op.cit.; Statistics Canada, Initial Data Release from the 1992 General Social Survey on Time Use, April 1993.

¹⁵ Marilyn Waring, If Women Counted: A New Feminist Economics, 1988, p. 33.

¹⁶ The World's Women, op. cit., p. 91.

C. BACKGROUND AND IDENTIFICATION OF CHALLENGES

Ian Macredie
Statistics Canada

Someone once said that the past is prologue to the future. That probably well describes Statistics Canada's history in the field of unpaid work statistics and what the future holds. Statistics Canada has, as I will show, already produced a substantial amount of information on unpaid work. I am assured by those on the outside that some of the early studies and surveys represent some truly pioneering investigations and these studies are still cited in the bibliographies of current books and articles.

Our past successes, in combination with the accelerating demand for data on unpaid work, have led to a determination to enhance our output in this field. Sponsoring this conference, in partnership with Status of Women Canada, is an important first step in expanding our unpaid work statistics program.

I will be saying a few words about the history of unpaid work measurement at Statistics Canada. Then I will go on to an overview of the unpaid work programs which will unfold in the immediate future. The scope of this conference, and the objectives of our future work are linked. As Dr. Fellegi said in his remarks, we expect to be able to accelerate our progress by applying what Statistics Canada learns over the next few days, as you share your experiences and expertise with us. In the current fiscal climate, none of us can afford to spend scarce resources re-inventing wheels. I trust that you will forgive us for such unabashed appropriation of your intellectual capital.

The overall concept of unpaid work which we are aiming to eventually cover in our program is very encompassing, very inclusive. What we would regard as a complete system of unpaid work statistics is one which addresses **all forms** of what has sometimes been called **productive activities**.

Productive activities include all of the unpaid work which takes place within a household to the benefit of household members, but that is only a beginning. Productive activities or unpaid work extends to all of the volunteer activities which enrich our lives. Also included as unpaid work are those activities which take place largely outside of the home of the individual doing the work, but

which are **not** conducted through the medium of a formal volunteer organization. These services flow through the networks of families and friends. Sometimes these services are what makes any one of us a good neighbour.

This last kind of unpaid work may prove to be the most difficult of all to measure but that is no reason not to at least make the attempt.

The point to keep in mind about this unpaid work statistics program is that it must be very complete. This is necessary if the new system is to be on an equal footing with the market production statistics system that is already in place.

Let me now provide you with a cursory review of what **Statistics Canada has produced in the past**.

Perhaps the most truly pioneering work was that done by persons associated the System of National Accounts. I am thinking of Professor Oli Hawrylyshyn and Hans Adler of Statistics Canada who published several papers on the volume and value of household work in the '70s. This work has continued with the publication of further estimates in the mid '80s. The most recent in this series was released less than a year ago. I will speak further about this element of the Statistics Canada program under the heading of future plans.

The 1970s also saw the first of Statistics Canada's attempts to develop unpaid work questions for the Census of Population as we conducted tests leading up to the 1981 Census.

The 1980s saw the first appearance of an abundance of specialized surveys. These were focused on, or were related to, unpaid work, and they were conducted as supplements to the Labour Force Survey. These served not only to generate never before available data on specific elements of unpaid work but they enabled Statistics Canada to refine the measurement techniques opening up the possibility of even more credible estimates in the future. These surveys included surveys of child care arrangements (including, obviously, parental "at home" care), and surveys of volunteer workers.

The General Social Survey program, also begun in the '80s, has provided the richest data base on unpaid work. The General Social Survey is conducted annually but with different content each year. In some years, 1986 and 1992 to be specific, it provided the indispensable time-use data about which you will be hearing more at this conference. In other years, it has yielded data on specific topics related to unpaid work.

I would like to mention in particular the 1992 time-use survey. It benefited from a number of enhancements including the fact that it was conducted throughout the twelve months of 1992 thus fully capturing the seasonality of time use in Canada. Given the complexity of the questionnaire, and given that interviewing concluded just 4 months ago, Doug Norris and his staff should be commended for having published the initial results just last week.

Other General Social Surveys which have yielded unpaid work related information include the one conducted in 1985 which contained questions on the family and friendship ties of Canadians. This survey focused on the help **given** by seniors to their friends and relatives, and the help that seniors **receive** from other people and organizations. The various kinds of help, given and received, were also recorded. The 1990 General Social Survey was similar except that it extended the questions on help given and received to all adults, not just older Canadians. Both of these surveys broke new ground by distinguishing between those exchanges of assistance which occurred within the same households and those which involved individuals in different households.

Several other surveys have gathered at least some information on unpaid work, even if that was not their primary objective. For example, there was the Health and Activity Limitation Survey which was a post-censal survey also known as the survey of disabled persons. It collected data on the unpaid support given to, **and provided by**, disabled persons in Canada.

There are other more obscure sources of data on unpaid work and other studies which bear at least in part on it, which I have not mentioned. In the same way that unpaid work pervades our lives, it surfaces in a host of Statistics Canada products.

Let me now address what this conference is all about, that is, Statistics Canada's **future output** in the field of unpaid work.

Over the next two years, the Statistics Canada products relating to unpaid work will focus on developing the foundations of a statistics system dealing with unpaid work. We also intend to make further use of the databases of surveys already being conducted.

Building directly on the output which began with Hawrylyshyn and Adler, work will be undertaken within the System of National Accounts to refine the existing measures with a view to exploring how the **volume and value** of household work has **changed over time**. In addition, the

capital and material inputs to household production, resulting in estimates of the value of **household production** (not just household work) will be estimated. This is an essential step towards the development of satellite accounts which closely parallel the existing System of National Accounts.

In terms of enhancing the visibility of unpaid work, perhaps nothing is as important as the fact that our plans call for the **regular, probably annual**, publication of these statistics in marked contrast with the admittedly ad hoc release of publications in the past.

Before leaving the topic of national accounting related measures, perhaps I should point out that there is a certain appropriateness in having some of the pioneering activities done in the national accounting area of Statistics Canada. After all, it was the production boundaries of the System of National Accounts which many years ago determined the activities which are now covered by our **paid** work questions on the Census, on the Labour Force Survey, and elsewhere.

Another initiative, whose conceptual underpinnings have been under development for some time, is the Total Work Satellite Accounts. This program is being directed by Dr. Leroy Stone, a name familiar to many of you. In the time available to me I cannot do justice to Dr. Stone's initiative, but since he is with us for the conference, I would urge you to approach him for details. In fact, this program will have an information kiosk set up where we will be having lunch tomorrow to enable you to learn more about this innovative program.

As the name implies, the **Total Work Satellite** accounts, rather than focusing solely on unpaid work, looks at **both** paid and unpaid work simultaneously. From its inception, all types of unpaid work will be covered, be it housework, formal volunteer work, or services through social support networks. In other words, it is an exercise in integrating data on paid and unpaid work. In so doing it will explicitly address the vexing challenge that so many Canadians face of balancing their paid and unpaid work responsibilities.

In technical terms, the Total Work Satellite Account involves creating a micro data base showing both the paid and unpaid work activities of individuals. Tables or matrices are derived from the files, tables which display both kinds of work effort simultaneously. This is a very application oriented initiative. To quote Dr. Stone, "Policy impact simulation, as well as simulation of the potential impacts of major demographic changes on the composition of the aggregate work output ... will be possible [with] these matrices."

We cannot advance on all types of unpaid work simultaneously. Our resources are limited and attempting to move uniformly on all fronts will only result in making slow progress everywhere rather than making breakthroughs in some areas. In addition, from the point of view of measurement there are many characteristics which the various types of unpaid work have in common. Consequently, the techniques developed and refined in measuring one type of unpaid activity will accelerate the rate of progress once development begins on another type of unpaid work. For example, the work done in the national accounting area has focused on, and will continue for the moment, to focus on, household work and production. The intention, however, is to eventually extend this program to cover all other types of unpaid work.

In terms of a possible orientation for us, we should mention that various federal departments and agencies are interested in different types of unpaid work. For example, the 1989 Survey of Volunteer Activity, probably the most complete and detailed survey of its kind ever carried out, was sponsored by Multiculturalism and Citizenship Canada. More rapid progress is made in those areas of the unpaid work sector which receive financial support from the departments. These external resources expedite the process and complement those already allocated by Statistics Canada.

No presentation on Statistics Canada's future program of unpaid work data would be complete without some mention of the content of the 1996 Census questionnaire. At this point what I can say categorically is that, "We're trying folks." We have tried in the past to overcome the unique challenges which the limitations of Census methodology pose for the measurement of unpaid work.

We know that we can measure unpaid work through the extremely detailed and highly systematic approach applied by professional interviewers in a time-use survey. The difficulty lies in condensing that complex approach down to the few simple questions allowed on the Census questionnaire for any topic. At the same time we must ensure that respondents can consistently answer these questions without the assistance of a trained interviewer.

With this round of research and development we have had the **very welcome** assistance of a task force from federal departments and agencies. These include Status of Women Canada, the Canadian Advisory Council on the Status of Women, the Voluntary Action Secretariat of Multiculturalism and Citizenship, the National Advisory Council on

Aging, and the Farm Women's Bureau of Agriculture Canada.

Those participating in this task force have gained an appreciation of the elusiveness of our goal. Statistics Canada, in turn, has gained an abundance of fresh ideas and new insights into alternative approaches. We have all watched from behind the mirrored glass panels of the focus group room as typical Canadians struggle with our many draft questionnaires.

So far it has been both rewarding and frustrating. It has been rewarding in that all of the people completing the questionnaires in the focus groups have applauded the presence of the unpaid work questions. But it has been discouraging in that the disparities in their interpretation of the questions still offer only limited hope for such questions yielding solidly meaningful statistics if applied to a real Census.

However, the presence of unpaid work questions on the Census of Population in no way affects Statistics Canada's capacity to succeed in all of the other unpaid work initiatives which I have mentioned.

Finally on our look into the next few years, there are a few things which I would like to say about the inherent characteristics of our future output in the field of unpaid work.

First of all, for the next few years at least we will be labelling our future output as "provisional," "experimental," or "initial." This is not to say that we do not have confidence in what we will be publishing. We would not publish it if we did not believe that the estimates are useful. Nor would we publish them if we did not think that they were the best possible given the available source data, and given the state of the art in estimation methodologies. These tentative labels merely reflect that unpaid work statistics will continue to be in a state of development for some time to come. Our users can expect, therefore, that estimates of a given phenomenon for a given date may be revised, and possibly substantially, several times as more refined estimation techniques are developed and adopted.

This is no different in many respects from our practices with other outputs of long standing. For example, estimates from the System of National Accounts, are revised several times, not because of refinements of methodology but rather as more complete data, particularly administrative data such as tax files, become available.

Our data on unpaid work will continue to be expressed in ranges. For example, the estimates of the value of household work released last June ranged from 159 to 199 billion dollars. I admit that such ranges are perhaps inconvenient for data users but they reflect the current state of the art and the degree of consensus in measuring unpaid work. As Dr. Fellegi pointed out in listing some of the challenges facing us, there are a lot of choices to be made, using non-statistical criteria, which can only be made through time consuming consultation with the data users. Until these choices are in fact made, many of our unpaid work estimates will continue to be expressed as ranges.

I would like to conclude with a commitment to what someone has called "**information democracy**." The early unpaid work estimates published by Statistics Canada are not as well known as they should be, and they have never been widely known. In contrast, the estimates published last June are far better known, and there is a reason for this.

In the past decade Statistics Canada has expanded its analytic output considerably,

particular analysis designed to be easily readable by a **very wide audience**. This is evident in the creation of periodicals such as Canadian Social Trends, Perspectives on Labour and Income, and the Canadian Economic Observer. The result is, and this is no accident, that such analysis is far easier to report on and so gets far more extensive coverage in the news media.

While some of the unpaid work information will appear in scholarly papers and some of it will take the form of conventional number filled publications, Statistics Canada will continue to use these popular analytical vehicles as one of the means of disseminating its unpaid work data. To abuse an old aphorism, "It is not sufficient that Statistics Canada produce data on unpaid work. It must be very widely **seen** to be producing such data."

We have the media here with us today and perhaps this conference will enhance the profile of unpaid work statistics as well as that of unpaid work itself in Canada.

Thank you for your attention.

D. USER REQUIREMENTS AND DATA NEEDS

Evelyn Shapiro
University of Manitoba

When I was invited by Leroy Stone to address this workshop, he asked me to use both my life and research experience to discuss the workshop's agenda. Such an invitation intrigued me because it would give me an opportunity to lift my nose from the grindstone of daily preoccupations to think in quite another dimension and about a topic I regard as very important - unpaid work.

For me, the importance of knowing much, much more than we now know about unpaid work goes well beyond intellectual curiosity or the need to recognize its contribution, value and cost. Demographic and social changes may entail some replacement of unpaid by paid work, making it imperative for governments to know the potential costs of these changes and which costs can be mitigated by judicious policymaking. Among these demographic changes are the aging of the population, the decreasing number of offspring, the increasing participation of women in the labour force and changes in social mores. But the key to providing government and society with a good basis for decision-making will be to ensure that we have not only the capacity to take a snapshot of what is happening at one point in time but the capacity to assess trends. I, therefore, see as important the need to be as clever as we can be in developing the questions which will provide the necessary data now but also to make sure that their design will be good enough to retain them in the future in order to avoid the problem of comparability with past findings.

Aside from my interest in public policy and research, the reason why I feel so strongly about our neglecting to have a reasonable record of unpaid work is the persistence of myths in the absence of Canadian data. For example, the literature indicates that the provision of formal services does not substitute for but, instead, complements informal caregiving. It may, in some circumstances, even increase the involvement of informal caregivers. But the frequency with which the assertion is made that families take off when formal services are provided continues unabated. Again, contrary to published findings which clearly point to other causes, we are continually barraged with statements that we are in a health care crisis because caring for an increasing number of elderly is bankrupting us. In both these examples, the relevant studies are generally based on provincial data and the findings are quite probably applicable

to Canada as a whole but their generalizability can always be questioned when the data are gathered in a specific jurisdiction. I hope you will now appreciate why I think it is so important to gather national data on our unpaid resources and of the people who juggle work, family responsibilities and personal agendas to perform hours of unpaid labour.

My life experience, as you can see just by looking at me, is long. What you may not know, however, is that I was engaged in many different activities but, even more importantly, that I have had more experience with these other activities than in doing research. While I will try to summarize my experiences and to use my limited research career to link them with some broad statements on what governments and researchers need to know about unpaid work, one look around me convinces me that everyone in this room could do this job better than I can. This is not, I assure you, false modesty on my part as you will doubtless discover as I proceed.

Nevertheless, here I am and I'll try to make the best of it. But I want you to bear in mind that I am like the visitor to an art gallery who says: "I don't know much about art but I know what I like." I am not an expert in survey research and have only limited experience in drafting the kind of questions that will elicit the data I want. I think I know, in broad terms at least, what I would like to know about unpaid work and workers but you will have to do most of the real work.

A brief synopsis of my life may help to define the territory I propose to cover and, perhaps, to alert you to some of my underlying biases. I am married, have raised two children and spent seven years as a full-time housewife before returning to paid employment, first part time then full time and then again part time. During all these years I also spent many hours as a volunteer, mostly as a member or chairperson of Boards of Directors of non-profit social agencies. For the largest part of my working life, I was director of various health and social service agencies, particularly those serving the elderly. You will, therefore, I hope, forgive me for sounding almost "corny" when I tell you how impressed I was and still am with the extraordinary amount, type and value of unpaid work rendered by informal caregivers and volunteers.

This brings me to the latter part of my life which I have spent as a researcher. In my areas of interest, I am constantly aware of the paucity of data available on the type and intensity of unpaid work, the time spent doing it and on both the lost opportunities and real financial costs borne by unpaid workers.

I intend to go into each of these areas of unpaid work in more detail except for the area covered under managing a household and raising children. I will not dwell on this type of unpaid work, despite its importance, for three reasons: 1) it has already begun to dawn on us that this work entails time, that it has value to society and that it involves future losses in pension income; 2) I am aware that attempts to measure time and costs have been underway for some time; and 3) my main interests lie elsewhere. I, therefore, prefer to spend my limited time on other areas of unpaid work.

I will start with my activities as a volunteer. Non-governmental, voluntary non-profit agencies depend on Boards of Directors or Boards of Trustees for policymaking, financial accountability and a wide variety of other tasks. This generally involves attending at least one three-hour Board meeting a month. If you assume an executive position on the Board, you probably also attend one executive meeting a month. As chairperson of the Board you spent time working with the Director to prepare the agenda or, as Treasurer, working with the office staff to prepare financial statements. In addition, some organizations require that Board members serve on at least one subcommittee of the Board, sometimes as the subcommittee chairperson. Subcommittee work often involves spending similar amounts of time.

But this still underestimates the time such unpaid work demands. Emergency meetings are occurring more and more frequently as a result of financial constraints and meetings with funders are also occurring with increasing frequency. With any luck, the word gets around that you are willing to donate this amount of time and effort, so other organizations, which appear to find it increasingly difficult to find persons willing or able to serve, plead with you to help them too, often bending the truth a little in order to get you to join them.

Some comments about Board membership, aside from the time and effort, may help to refine our ideas on measurements and data needs. Boards require at least some volunteers with a high level of knowledge and skill. The personal responsibility of Board members if the agency runs into financial difficulties (an increasing problem these days) adds a touch of anxiety to current volunteer activity.

My perception as a result of my experience on Boards is that males usually outnumber females except on Boards of agencies which deal exclusively with women's issues, but I may be wrong. I also notice that some of these males serve on Boards because some large companies either demand some community service from their management

employees or make it known that promotions will be influenced, in part, by a willingness to assume community service commitments. Having been on Nomination Committees several times in both earlier and recent years, it seems to me that it is getting increasingly difficult to recruit new Board members. If I'm right, it may be because male professionals and business managers, who have been the mainstay of Boards, may be finding the time and stress too burdensome, or they may have less time available as companies restructure or they may be choosing to spend their leisure time in other ways. I also perceive a trend for Board members to refuse a reappointment for another term when by-laws allow it, suggesting that, at least for some, the cumulative burden may be an important factor.

The same trends appear to me to be happening in regards to women Board members. They seem to me to be even more likely to either resign or refuse to be reappointed. Their reasons may be different and we would be well-advised to know if their reasons involve children, aging parents, long work hours or educational needs.

So, what do I want to know about volunteers as Board members, as executive Board members and as subcommittee members? Of course I want to have sociodemographic data such as age, sex, education, income, occupation and whether they are in the labour force full or part-time, their marital status, family status and whether they are providing any eldercare. I also want to know what they do, i.e., the specific types of tasks they perform as Board or committee members, the time they spend doing them and the function of the organization they serve. In addition, I want to know how long they've served, why they serve, whether their employer encourages such service, whether they plan to serve next year, whether this year's work demands more time from them than last year's, and whether they have out-of-pocket expenses. If they do, are they recompensed. If yes, how much do they receive (this will help to establish values). If not, how much money is it costing them? If they have served on Boards or subcommittees within the past five years but not now, I want to know the reason: did their term expire or did they find it took too much time away from other commitments or did the hours spent in paid employment increase? There is much more I would like to know (i.e., the degree of satisfaction and the degree of stress associated with these activities) but I don't know if this is too much to ask.

In an agency serving the elderly, volunteers spend time providing direct services to individuals in a variety of ways. They provide services such as friendly visiting, telephone reassurance, delivery of

meals-on-wheels or wheels-to-meals, driving persons to essential appointments, etc. Aside from orientation and training sessions, friendly visiting usually involves spending one afternoon a week visiting a specific person with whom each volunteer is matched to maximize the mutuality of interest and interaction with a relatively isolated individual with little or no informal network. But again, that is usually not all there is to it. Telephone calls from these unpaid volunteers would inform us that, for example, they would spend an extra day or two next week because the person they were visiting was moving and needed their help with packing belongings. Or they would phone to say their visitee was feeling and looking unwell and to ask who should be informed. Since the agency sponsored an evening each year to honour the volunteers (and to keep them informed), I remember being surprised to discover how many had been visiting persons regularly for over three years. Telephone reassurance callers, again aside from orientation and training sessions, spend an average of one-half hour each day phoning a specific person whose status makes him/her or the family concerned about safety. The situations range from temporary reassurance for families who are vacationing, to reassuring relatives who do not live in close proximity and worry about their relative's decision to continue living at home despite functional problems to reassuring individuals themselves who worry about falling prey to a catastrophic event during which they will not be able to reach anyone for help. Providing the basic service may only take about a total of 3-4 hours a week if only one person is called, but the responsibility involved, the extra time and anxiety involved if the telephone is unanswered at the appointed time and the actions taken to call the appropriate authorities when that occurs are not negligible.

Volunteers who deliver meals to people or people to meals may work one or more days per week for about 2-3 hours. Both not only provide unpaid work but may also be called upon to pay their own car expenses. In my view, (although the volunteers may not agree with me), those who bring people to meals work harder physically, especially when they pick up more than one passenger, because they may need to help some functionally-dependent persons into and out of the car.

Having been the Director of an agency which provided these types of services has given me insight into the value of their contribution, to the extent of their commitment and to the realization that they might have had lunch with a friend, taken a course or read a book instead. The demand for such volunteers and other types of volunteers is increasing. Just the other evening I heard an

interview on "As It Happens" with an elderly lady who has had cataract surgery and who has been asked to hold hands with outpatients undergoing cataract surgery from 7:30 a.m. to noon one or two mornings a week. Most but not all of these volunteers are women although male retirees are increasingly being asked to serve as drivers for meals-on-wheels or appointments. My impression is also that the proportion of elderly among these volunteers is increasing.

So what do I want to know about these direct service volunteers? Pretty much the same things I want to know about Board or Committee volunteers. In addition, I would like to know if they are reimbursed for the expenses associated with their voluntary service, if the physical demands of this unpaid work are substantial and, if so, whether this could limit their future ability to provide this type of unpaid work.

As Director of the Office of Continuing Care I experienced what I can only refer to as astonishment at the devotion, time, hard work and newly acquired skills of informal caregivers. They are not volunteers like the others whom I have been describing. They have not volunteered to perform a community service. Their reasons for serving are varied and complex, including a sense of obligation or duty, feelings of love or devotion, and/or the conviction that other family members are not fulfilling their obligations, leaving them to fend with providing all or most of the necessary help themselves. Predominantly women, some elderly and frail themselves, others working full or part time while coping with husbands and children and still others single working women who have left work to care for a parent, they spend hours doing physically and mentally trying tasks, foregoing opportunities that range from simply resting to education to future pension income, not to speak of promotion and fun. The intimacy of tasks such as toileting or bathing are often a source of discomfort and even embarrassment. They may also perform tasks such as giving eyedrops, changing bandages or other tasks which require learning new skills such as giving insulin injections – all tasks which in facilities are done by professionals or para-professionals. And they carry on either until the cumulative burden becomes too heavy to bear even with the receipt of formal services or until death. About 80% of the tasks performed for the elderly are rendered by these caregivers. But the tasks per se are not all. Their presence and their level of involvement cannot be matched by formal care providers. Furthermore, this unpaid work by their relatives and friends often means a great deal to the care recipient.

So what do I want to know about them. In addition to the same questions I have itemized before, I would like to know: what is their relationship to the care recipient; what is the care recipient's age and sex; is any other family member, friend or neighbour also helping and with which tasks; are formal services being used and, if so, for what specific tasks; do they live in the same household as the care recipient, if not, how long do they travel to do them; what specific tasks do they do; how many hours per day or week does each one take; do they find some of these tasks more difficult than others and, if so, is it the physical or emotional demands which make these tasks more difficult; have they left work or foregone a promotion as a result of their involvement; does this involvement affect their income in other ways and, if so, how; did they have to learn new skills and, if so, which ones? Have they reduced the time they spend resting, meeting family and friends, having fun? If so, by how much? While we are busy measuring stress among caregivers, we know little about its pleasures. We rely heavily on quantitative units of measurement, but it is at least important for us to acknowledge that caregiving makes a qualitative difference to the lives of many caregivers and care recipients. Perhaps you can find a way to ask the kind of questions which will provide us with some insights into such questions. Again, there is much more I would like to know but this much would be a good start.

As I indicated to you before, I am a "Johnny-come lately" to research, having changed careers at about age 50. Three factors contributed to the change: 1) there appeared to be little Canadian interest in addressing the questions I thought important; 2) the little research that was then available was coming from the U.S. whose policies and programs were very different from ours; and 3) the data I needed were becoming available and colleagues were ready to help educate me. It certainly proved to be an exciting road and for that I want to publicly acknowledge my debt to Betty Havens who, over 20 years ago, not only embarked on surveying the needs of the elderly in our province but who used her own creativity, in addition to the literature, in designing interview questions which would provide us with data and consequently insights into both the recipient and provider of help, both paid and unpaid. As sophistication and self-assurance grow, you want more answers or better answers to important questions.

How marvellous it would be if we had Canadian data on unpaid work – and better data than can be obtained from studies whose primary goal is, for example, to identify the needs of the elderly rather than to focus on unpaid work. Why do people do it, –

do they perceive themselves as having to or do they want to, how much do they do, what kind of skills did they have to learn in order to do it? Did they have to leave work to do it? You'll notice that I have not included a question as to what they would do if they weren't doing it. That's because, since I was a youngster, when I asked my mother a question starting with: What if...? the response was invariably: "If my grandmother had wheels, she would have been a carriage." You may be better than me at answering or asking such speculative questions. If you know how to mitigate the perils of such conjecturing, I would be most grateful. But the key, as I said before, is comparability between questions in past and current surveys so we can observe trends.

Since my description of unpaid workers and their contribution may lead you to think that I am enthusiastically embracing the idea of getting data on unpaid work because volunteers need to be acknowledged I want, in closing, to reiterate that we need to know what's going on for "hard-headed" reasons.

Researchers need to identify the reasons why people perform certain types of unpaid work, assess the contribution of unpaid workers to different types of activities, estimate the cost of unpaid work to the worker and the dollar value of unpaid work to society. Government needs to know both the current input of unpaid workers and the potential costs of replacing unpaid with paid work if sociodemographic changes without concomitant policy changes make such replacement inevitable. One important social benefit not yet mentioned is that the data may give us the insights necessary to help us identify new types of individuals or new sub-populations which can be tapped to increase the supply of those who provide unpaid work.

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Why measure and value unpaid work?

When a national statistical office is considering a new data request, there are a number of questions that require answers in order that funding allocations can be justified. These include – What needs to be measured? Who requires it? For what purpose? and What are the policy applications? I shall attempt some answers in the course of my paper.

The evolution of our major statistical data systems is the result of an interaction between statisticians, researchers, policy makers and the

community which actually funds this process. So it is appropriate that all these types of interests are represented at this meeting. We should all realise that what we are talking about at this conference is not just a marginal addition to our knowledge, a marginal addition to our national statistical systems. We are talking about a major change in our view of the world and a major change in what needs to be measured.

We need to measure and value unpaid work; that much is agreed. What we are talking about at this meeting is making visible, in the most useful ways possible, about one half of all valuable economic activity. We are talking about how we can put in place the most efficient systems which can open up the other eye of the "statistical binoculars" with which we view *the economy*. Unfortunately, one lens of our binoculars has been closed so we can't see what is going on inside the household.

Our present economic accounts and other economic statistics on such concepts as *work* or *employment*, purposely, incorrectly, and dangerously, make unpaid work invisible and of no "value." We have come very close to saying that unless goods and services are paid for by cash or credit card, they are of no value and hence unworthy of consideration. We say to the world, every time we issue the national accounts, "Ignore the non-market economy, it is of no consequence."

The household economy defined

To me, non-market economic activity is to all practical purposes synonymous with the household economy. And, any definition of the household economy involves the definition of unpaid work of households. But it also involves using household capital for which no payment is made as it is used. National accounts definitions make an exception for owner-occupied housing. Imputed values for the rental of these dwellings are included even though owners do not make payments to themselves for the use of this capital. It is an accident of history that imputed values for household labour and other capital were omitted from our national accounts.

We probably all have slightly different definitions of the household economy in our minds. To me it is not just a sector of the economy of which we have lost sight. To me it is of such size and importance it is most usefully considered as a separate economy which is at least on an equal footing with the market economy. The total economy is a two-legged animal, with a market leg and a household leg. Both are necessary for the economy to stand up, to walk and to run.

One definition of the household economy that I have suggested is as follows. The household economy can be defined as *the system that uses the unpaid labour and capital of households to produce tradeable goods and services and that allocates home produced and purchased commodities for use within households*. So the household has both a production role and an allocation role. Although the allocation role should not be ignored, for most discussion of the household economy we can concentrate on the producing activities or *industries*.

It is important to note the inclusion of household capital as contributing to the productive activities of the household economy. Mandeville (1986: 258) defines the household economy as comprising "the sum of all goods and services produced by households for themselves or voluntarily for the community. It also includes the value of services rendered by capital items such as consumer durables and shelter owned by households." The service from the capital owned by households, "unpaid capital," also needs measuring and valuing.

Persistence of the household economy

Despite the invisibility of the household economy in the official statistical record of national production, several perceptive writers have noted the persistence of household production throughout the evolution of the market economy over the last 300 years and have suggested that the tide is now turning away from market industries in favour of those of the household.

Burns (1975) notes the steady growth in the relative importance of investment in household equipment in the United States, rising from a level of about 33 per cent of gross capital formation in equipment in market industries in 1900 to over 100 per cent by 1950. In other words, by 1950, the Americans were placing about as much new equipment in their households as they were putting into their business sector.

Similarly, Gershuny (1978) notes the significant fall over two decades from 1954 to 1974 in the United Kingdom in the proportion of household expenditure devoted to the purchase of services from the market. This fall was offset by a rise in the proportion of household expenditure on capital equipment - cars, refrigerators, stoves, freezers, washing machines, vacuum cleaners, power tools, televisions, videos and stereos. To Gershuny, this rise in investment in household industries indicated a fundamental change in the relationship between the market and the household. He wrote:

"Instead of capital investment taking place in industry, and industry providing services for individuals and households, increasingly capital investment takes place in households, leaving industry engaged in what is essentially intermediate production, making the capital goods – the cookers, freezers, televisions, motor cars – used in home production of the final product." (1978: 81)

Mandeville (1986) notes that communications media are particularly illustrative of this trend:

"Nineteenth century media, such as newspapers and theatre, required no household investment in the system itself. Now, much of the investment in maintaining a national television channel is held by the household viewers rather than the system supplier." (1986: 260)

The capital investment in television sets in every home could well exceed the cost of television studio and broadcast facilities.

A more wide-ranging view of what is taking place has been expounded by Toffler (1980) in his book *The Third Wave*. He divides history into three waves. In the first wave of pre-industrial societies, nearly all production took place within households for their own use, not for exchange. The fishing villages mentioned by the Minister this morning would be an excellent example of this type of society. In the second wave of the industrial revolution, production was increasingly for exchange and was organised in factories, warehouses, shops and offices away from households. Toffler suggests that in the third wave of the post-industrial society, a large proportion of productive value-adding activity will revert to households. During the second wave households have gradually been provided with the appropriate equipment to deliver the desired final products flexibly, when needed, and with minimum transaction costs.

Toffler describes the wholesale movement of tasks from market to the household as having been driven by opportunities to externalise the labour costs of market industries. The tasks we are now expected to perform include: direct dialling of local, long distance and international telephone calls without operator assistance; fuelling cars at self-service petrol stations (in the USA only 8 per cent were self-service in 1974 but 50 per cent by 1977); banking by automatic teller machines; customer selection of goods from shelves in supermarkets and

discount stores with few sales assistants (Toffler 1980: 280). Although there has been a slower development of the fix-it-yourself home appliance repairs industry, there has been a very strong advance in the do-it-yourself home decoration and renovation industry. Most hardware store sales are now for home renovation and maintenance by householders.

Toffler suggests that to bring economics back in touch with reality, economists will need to develop new models and new measures for describing the processes in the household economy. Our present models and measures just describe the operation of the market economy and ignore household productive activities. What we need is an evolution of economic models together with an evolution of the statistical measures used in these models.

The evolution of national accounts for income and time

At this point I would like to make some brief comments on the evolution of the national income accounts and to compare this with the current evolution of a system for accounting for uses of time. In particular I wish to draw attention to the role of international comparisons in the evolution of these systems.

The understanding of economic and social conditions has benefited greatly from comparisons between countries. One of the most fruitful examples of this is in the work of Colin Clark. He was one of the pioneers of our national accounting systems, working primarily in Britain and Australia. In a research project undertaken over the years from 1935 to 1940, Clark drew together all available national income data for an international comparative examination of the wealth of nations, the problem outlined by Adam Smith in 1776. Published in 1940 as *The Conditions of Economic Progress*, Clark's work was the first systematic attempt to use national accounts for a large number of countries to test the hypotheses of modern macroeconomics; it provided the first statistical evidence of the gap in living standards between rich and poor countries, and it was the first major work for decades to turn attention to the classical problem of economic growth. The 1940 volume was the major source of GNP statistics for development economists until the publication a decade or so later of official estimates to United Nations standards. These standards depended greatly on the work of Richard Stone who, with James Meade, was largely responsible for the publication of the first official estimates of national income for Britain in 1940.

There seems to have been three stages in the development of internationally comparable national income accounts. The first was the preparation of national income accounts for a number of countries. This was done somewhat independently by researchers in universities and research organisations and led to the Clark comparisons of 1940.

More or less simultaneously in 1940 it was recognised that national income accounts could be of use for national policy decisions. This recognition led to the second stage – the preparation of official estimates on a continuous and up-to-date basis by national statistical organisations. The wartime development of official estimates in Britain in 1940 led the Canadian and United States governments to prepare official estimates. The three sets of official income accounts treated a number of items differently. As the principal architect of the British accounts, Richard Stone was invited to consider the differences and to prepare a paper outlining a set of standard definitions. He presented his solution to a meeting of officials in Washington in 1942, thus setting the foundation for international comparability of the national accounts.

After the war, we entered a third stage where international standard definitions and conventions were adopted to allow more precise comparisons. Stone went on to be instrumental in setting the framework for the system of national accounts (SNA) as chairman of the UN Statistical Commission committee which published these standards in 1953. Stone was also chairman of the committee which determined the revised SNA in 1968.

Within a short number of years the national income accounts became part of the world-wide system of international business and government. These accounts provide the basic information on the performance of every country and are also the framework for the national economic models that are linked together to provide dynamic models of the world economy.

International development of national time accounts seems to be following a path that has some similarities with the stages in the development of the national income accounts.

First we had the independent surveys of time use in a number of countries, particularly in Russia, with studies by Strumilin and by Sorokin & Berger in the United States (Vanek, 1974). This was followed by the cross-national time budget study of the mid-1960s under the sponsorship of UNESCO

and the International Social Science Council and directed by Alexander Szalai.

National time accounts have reached a second stage where the national statistical offices in a number of countries have devoted resources on an increasingly frequent basis to conduct regular household time-use surveys. The countries include not only Canada, Australia and the Scandinavian countries, but also Germany and Italy. The national statistical offices in these countries are starting to get a systematic, common view of what is needed and how it should be done.

National time accounts are not yet on a continuous basis like the national income accounts, but have become the focus of an increasing amount of international attention. This attention has been continued by the meetings of the International Association for Time Use Research and by the collection of a data archive at the University of Bath by Gershuny and Jones. This archive now contains more than 20 surveys in 9 countries. Since 1960 there have probably been more than 60 reasonably sized, diary-based surveys in 25 countries.

I think the world is reaching the stage where it is possible to have regular measurement of unpaid work through regular national time accounts covering both paid and unpaid work and leisure. These accounts would provide a valuable addition to the present regular national income accounts and would enable regular satellite accounts for the industries of the household economy to be prepared.

Household industries defined

Household industries are the productive activities conducted by households using household capital and the unpaid labour of their own members to process goods and provide services for their own use. Collectively these industries can be called the *production sector* of the *household economy* as distinct from the *allocation sector*. The production from the household economy is often called *non-market production*. It includes the preparation of food and meals, laundry and house cleaning, child care, shopping, gardening and other household tasks.

For convenience, the household economy can be considered to contain seven separate but related producing industries covering (1) the preparation of food and meals, (2) laundry and house cleaning, (3) child care, (4) shopping, (5) repairs and maintenance, (6) gardening and (7) other household tasks.

Market alternatives exist for all of the types of goods and services produced by these seven industries. Non-market production could also include (i) the voluntary work done for other households either directly or through community organisations, (ii) time spent in self-education through courses and home study and (iii) unpaid activities related to market production, such as travel to work and job search.

To distinguish productive activities from *leisure* activities the "third-person" criterion is often used (Juster and Stafford, 1991: 505). This defines productive activities as those that you can pay someone else to do for you; a leisure activity you must do for yourself. This is not to deny that the person undertaking a productive activity may obtain pleasure directly from the performance of the task. In both market and non-market spheres there are tasks that people find enjoyable; whether or not monetary recompense is involved, some tasks can also be unpleasant. Leisure activities are both unpaid and pleasant.

The ever-increasing do-it-yourself home entertainment industry could also be considered for inclusion among the list of household industries. Perhaps a greater proportion of the time we spend listening to or watching home entertainment with VCRs and CDs involves time in obtaining, selecting, loading and unloading tapes and discs. This is virtually unpaid work equivalent to the work of the projectionist in a cinema or a disc jockey in a radio station. If this time were recorded separately in household time surveys, it would be possible to estimate a separate household entertainment industry. These data are not available, so in spite of

its importance, the work component of leisure activity is not easily assessed.

The size of household industries

Surveys of the uses of time provide the most reliable measures of the magnitude of household industries. In the 1960s an international standard methodology for household time-use surveys was established (Szalai, 1972), and the first Australian survey was conducted in 1974 (Cities Commission, 1975). Subsequently this was followed up by the Australian Bureau of Statistics in 1987 (Australian Bureau of Statistics, 1988).

From these measurements we know that the industries of the household economy are collectively larger users of labour than the combined sectors of the market economy. For example in Australia in 1987, as measured by weekly hours of labour input, market industries used 252 million hours and household industries 282 million hours. Unpaid work exceeded paid work by 12 per cent. Table I shows the details.

Grossing up the 1987 sample survey to reflect all Australian households shows 76 million hours per week are used in meal preparation, 63 million in cleaning and laundry and 53 million in shopping. From the data on labour inputs we can see that *the three largest industries in the economy are the everyday activities of households (1) in preparing meals, (2) in cleaning and laundry and (3) in shopping.* These three household industries compare with the three largest market sector industries: wholesale and retail trade with 49 million hours per week, manufacturing with 43 million and community services with 41 million.

Table 1
Australian Industries, Labour Inputs, 1987
Million hours per week

Market Industries		Household Industries	
Wholesale and Retail Trade	49.5	Meal Preparation	75.6
Manufacturing	43.4	Cleaning and Laundry	63.1
Community Services	41.5	Shopping	53.7
Finance and Business Services	27.5	Child Care	43.3
Construction	17.9	Other Household Tasks	18.3
Agriculture	17.4	Gardening	15.3
Entertainment	16.1	Repairs and Maintenance	12.8
Transport and Storage	14.1		
Mining	3.8		
Other Market Industries	20.6		
Total	251.7	Total	282.1

Source: *Estimates of the Households Research Unit, The University of Melbourne.*

The relative contributions of men and women to each of these 17 industries in 1987 are shown in Figure 1, Hours Worked: Australian Industries, 1987.

Women did 70 per cent of the unpaid work in household industries; men did 67 per cent of the paid work in market industries. Overall in 1987, in the *total economy* of both market and household industries, women did 52 per cent of all paid and unpaid work. However, as women comprised 52 per cent of the adult population aged 15 years or more, average hours per week of total work were almost the same, 46.6 for women and 46.1 for men.

Measures needed

Given that non-market activity is really the household economy, the data needs are at once both very simple to define and are very comprehensive. What users (social scientists, policy makers and members of the wider community) need is simply all the measurements that have been found to be useful in measuring the market economy. We need measurements of:

- (1) inputs of time, energy and materials
- (2) outputs of goods and services
- (3) capital formation, capital usage and capital stocks

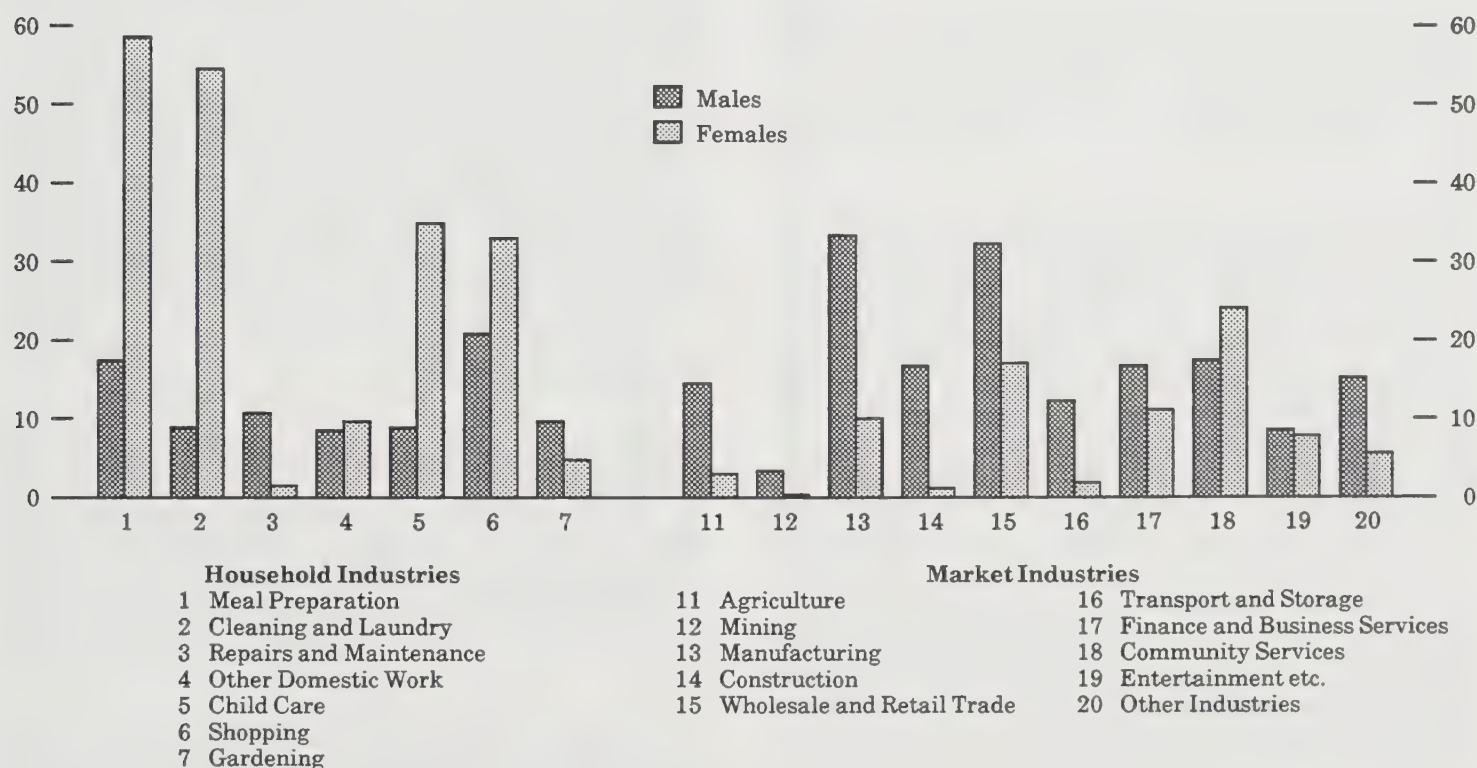
- (4) changes in production and leisure technology, and
- (5) individual income distribution, including the distribution of income in kind of goods and services produced both by the household and the market.

I am sure you get the picture; but I am also sure you can see we have a long way to go in providing an adequate set of measurements so that we can describe and understand what is going on inside the household economy.

For those who are not happy with my simple statement that we need to measure the household economy for the same purposes that we need to measure the market economy and would like to have a more specific list of uses for measurements of the household economy, let me refer you to the excellent list provided by Luisella Goldschmidt-Clermont in her 1991 International Labour Office working paper "Economic measurement of non-market household production: relating purposes and valuation methodologies."

Luisella Goldschmidt-Clermont sorts out the following nine uses for household economy measurements:

Figure 1
Hours Worked: Australian Industries, 1987
Million Hours / Week



Source: Households Research Unit, The University of Melbourne.

- (1) To fill a statistical gap and to produce extended labour statistics and extended production accounts
- (2) To monitor changes in the allocation of extended labour resources and to monitor actual economic growth
- (3) To ensure that government policies help non-market household production to be allocated an amount of productive resources commensurate with its economic significance
- (4) To identify the least productive activities and to introduce more satisfactory technologies
- (5) To help formulate labour market policies and for labour market planning
- (6) To establish household income comparisons, to measure standards of living and to formulate welfare policies
- (7) To help ensure that unpaid household workers are granted the social status and social benefits enjoyed by other workers
- (8) To help formulate population policies
- (9) To promote appropriate legislation, to protect women's economic status and to assist courts in financial settlements.

I am sure you will agree this is a very comprehensive statement of potential uses. I pick out just three for comment, beginning with number (4), the identification of least productive activities and the introduction of more satisfactory technologies.

We should recall that Charlotte Perkins Gilman, whose 1899 book *Women and Economics* was mentioned this morning, wanted to get rid of laundry from households as this was a most unproductive activity. It should be removed from individual households at least to collective arrangements if not completely to the market. This hasn't happened as Joann Vanek's survey (1974) of the data for United States shows. The change in household laundry technology from the wood-fired copper to the electric washing machine and dryer has resulted in a large increase in the quantity of laundry done and little reduction in time spent in this activity. We now get clean shirts every day, rather than a clean shirt on Monday and a clean collar on Wednesday, as our fathers did. A more efficient technology has lead to a greater output with much the same time input.

Number (7) in the list of uses for household economy measurements includes ensuring the social benefits enjoyed by paid workers are granted to unpaid household workers. One of the most important reforms needed is to ensure that compensation for accident, injury or death resulting from household work is covered by workers compensation legislation. The economy can be as disrupted as much by the injury or death of a household worker as by the injury or death of a paid worker. It seems strange we should compensate in one case but not in the other. Few, if any, countries have adopted a wider perspective to cover work in the household economy. New Zealand's accident compensation scheme may be the exception.

Finally, use number (9), legislation to protect women's economic status and assist courts in financial settlements, contains a great number of issues. Many of these will be discussed during this conference at workshops and plenary sessions.

This is the year in which a leading theoretician about the household, Gary Becker, has been honoured with the Nobel Prize in Economic Science. We have the opportunity this week and in the months ahead to complement that recognition of the importance of the household economy with the advance of many practical developments in the continuous *measurement* of the household economy.

Last year the national statistical offices of five countries conducted nationwide household time surveys – Australia, Austria, Canada, Germany and Israel. In the previous five years national household time surveys were conducted by the statistical offices of at least six other countries – Bulgaria (1988), Finland (1988), France (1989), Hungary (1987), Italy (1989), Norway (1990), and Sweden (1989). There were also nation-wide surveys in the last few years in other countries such as the 1987 survey conducted by the Danish Institute of Social Research. Currently the European Statistical Office is considering a proposal to conduct coordinated household time surveys in all 19 EC and EFTA countries in 1996.

Gross household product (GHP) and gross market product (GMP)

Household time-use surveys have provided and will provide us with the means of measuring Gross Household Product (GHP) which, when added to Gross Market Product (GMP), provides a measure of total economic output – Gross Economic Product (GEP).

In regard to the business cycle fluctuations of GMP, it is my hypothesis that GHP varies in a counter-cyclical way so that GEP is relatively

constant through the business cycle. Although I do not expect that the trade-off between household and market product is 100 per cent, I do believe it could be as high as 80 per cent. This would mean that a \$100 million cyclical rise in GMP would be balanced by a \$80 million fall in GHP so that the cyclical effect on total economic output, GEP, is only a rise of \$20 million. Incidentally, it is not just the unemployed who move between the two sectors during the cycle; it is all of us who sell more time to the market in a boom and less time in a recession. To test this hypothesis properly we would need to have national time accounts on a continuous basis.

Continuous national time accounts would not necessarily require a continuous diary-based household survey of time use along the lines of the continuous survey of household expenditure conducted in some countries. National statistical offices could follow similar procedures to that adopted with the national income accounts where data from several sources are combined to provide the annual and quarterly estimates. Benchmark diary-based survey at regular intervals could be supplemented by stylised questions on time use from monthly population surveys and data from a wide variety of sources such as attendances at entertainment and sporting events and journeys in public and private transport. Eventually, we should be able to have quarterly national time accounts to provide quarterly estimates of GHP to put alongside the quarterly estimates of GMP. I think the time is ripe for this development.

As I have said before, the main statistical binoculars and telescopes at present in use for viewing the economy purposely exclude from sight the household economy. We know from household time-use surveys and from estimates of capital in use, that the household economy in most developed countries uses more labour and probably as much physical capital as the market economy. It certainly has available to it more human capital than the market does.

It is dangerous to continue with this myopic, one-eyed vision of the world any longer. Accordingly Statistics Canada and the other organisations and individuals who are supporting this meeting must be congratulated. This conference will be an historic turning point in the world's vision on what is meant by "the economy" and by "economics."

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Why lawyers need statistics on unpaid work

The following paper provides a brief overview of three areas of law in which the treatment of unpaid work has become a central issue in determining rights and obligations. These include compensation for wrongful death, compensation for personal injury, and the division of property on family breakdown. A crucial question in each of these areas is whether unpaid work is to count as economically productive. During the course of preparing this survey, five themes have become rather obvious.

First, in every area canvassed, law has traditionally ignored the value of unpaid work. In particular, law has rendered women's work in the home invisible. Nowhere have women consistently received real, as opposed to merely sentimental, recognition or credit for their economic contributions and capacities. The lesson here is clear. Law, like other branches of knowledge,

reflects and reproduces social biases. In particular, law reveals a strong attachment to the wider cultural assumption that the market is the measure of all things - that if something does not have a price, or if it is free, it does not have value. We also see the reflection in law of patriarchal assumptions and values, in particular, the notion that the world is divided into private and public spheres, that the household and enterprise must be kept separate, and that the unpaid labour performed "invisibly" by women in the private sphere is either worthless, or of value only to men.

The second theme is that there is a symbiotic relationship between justice and knowledge. Our lack of knowledge has contributed to injustice. Time and again, judges and lawyers cite the *difficulty* of measuring the value of unpaid labour as a reason for *not* valuing it. The difficulty of measurement raises concerns about a flood of speculative legal claims, giving rise to indeterminate liability, and undermining the security of expectations. As stated, the relationship between law and knowledge is symbiotic. Just as a lack of knowledge has impeded the legal recognition of unpaid work, the refusal of the justice system to recognize the value of unpaid work has slowed the development of knowledge about this work and abetted in its marginalization. As in other areas, law here reflects the dominant epistemology by defining what counts as legitimate knowledge, reinforcing the primacy of only a partial perspective, and discounting other ways of understanding the world.

The third theme is that things are getting a little better. Recent developments indicate a somewhat more enlightened approach to this question. In every area canvassed the law is moving slowly to recognize the value of unpaid work. The "new knowledge" generated by those who have turned their attention to unpaid work and, in particular, to the household economy, is gradually finding its way into legislation and judicial decisions. This paper makes a plea for even better data on the quantity and value of unpaid labour and demonstrates how that data might contribute to further improving justice.

Fourth, we still have a long way to go. Fully valuing unpaid work is enormously difficult in a culture that is wedded to patriarchal values and to the market as a measure of all things. In every area canvassed, it is apparent that the recognition of unpaid labour is only partial so far, and that the valuation of such labour is still depressed. Again, better data may go some way towards improving the situation.

The fifth and final theme is that even with the best data, the basic problems of justice and injustice will not go away. Statistical information on the "value" of unpaid domestic work is a useful corrective to the historical non-valuation of such work. However, in many cases, such data merely exposes, rather than solves, the problem of injustice. As with law, statistical knowledge itself sometimes incorporates and builds upon contestable assumptions. In particular, the use of market proxies to value unpaid labour raises a host of methodological and normative issues that are highly problematic from the point of view of justice and human value. There is no reason why we should be the prisoners of currently accepted methods of valuing unpaid work, and in many cases, we argue that certain uses of the statistics should be rejected in favour of justice. In addition to these concerns of substantive justice, the increased use of statistical evidence raises concerns about access to the legal system. It is critical, in our view, that data be produced, presented and used in ways that do not add to the cost and complexity of the trial process. We will return to these problems of substantive and procedural justice in our conclusion.

I. Unpaid work and fatal accident litigation

We begin on an ironically progressive note. There is one area of the law where the value of homemaking capacity has long been recognized. When a person is killed, surviving family members may recover damages for their loss.¹ The irony here is that the earliest recognition of the value of women's unpaid work occurs in lawsuits by men for loss of their wives.

The earliest case to consider the question of unpaid labour in this context was in 1885. The case involved a claim by a husband whose wife had been killed in an accident at a railway crossing. The deceased had been a full time homemaker, and the various judges were divided on the question of whether any claim should lie for her death. Justice Ritchie, of the Supreme Court of Canada, described both views. On the one hand, he explained, some judges do not view the loss as an economic one, but characterize it as merely "sentimental."

"The loss of a wife or mother, no matter how industrious, careful or attentive she might have been in looking after her husband's affairs, and in promoting the material and moral condition and prospects of her children, was still sentimental and not of a sufficiently pecuniary character to support the action."²

This view (that there was no real economic loss in such a case) flowed in part from a concern that the loss could not easily be quantified, and that compensation would therefore lead to uncertainty and unfairness in damages assessment. Justice Gwynne took this view:

"There is no standard, as it appears to me by which a pecuniary value could be set upon [a mother's care of her family]... These benefits which spring from parental love and affection are neither procured nor procurable with money and are therefore insusceptible of having a pecuniary value attached to them, and their loss, therefore, cannot be estimated in money."³

This perspective was rejected by the majority of judges. Justice Ritchie concluded that "the loss of a mother may involve many things which may be regarded as of a pecuniary character..." He continued:

"I must confess myself to be at a loss to understand how it can be said that the care and management of a household by an industrious, careful, frugal and intelligent woman, or the care and bringing up by a worthy loving mother of a family of children, is not a substantial benefit to a husband and children; or how it can be said that the loss of such a wife and mother is not a substantial injury but merely sentimental, is to my mind incomprehensible..."

"The evidence in this case shows that the husband was receiving benefits and advantages from the services of his wife capable of pecuniary computation, and had such reasonable expectation of pecuniary benefit from the continuance of such services by the continuance of the wife's life as would entitle him to damages..."⁴

The court awarded to the family the amount of \$5,800 - a substantial sum at the time.

A more contemporary example is the fatal accident claim in *Franco v. Woolfe*.⁵ Here the trial judge rejected the defendant's argument that there was no, or only a very small, financial loss to the family upon the death of a homemaker. He stated:

"Marriage is not the acquisition of a cheap servant willing to perform countless tasks seven days a week for husband and family. While the husband may not be able to pay her, it does seem to me that her countless contributions demand recognition... She is a coequal partner in marriage and is entitled to recognition of that equality... Fortunately, economists are reconsidering whether the activities which entail the housewife's work in the household should now be evaluated in some way in terms of dollars and cents."⁶

In the 1988 case of *Kwok v. B.C. Ferries*⁷ (also a fatal accident case) the British Columbia Supreme Court assessed the value of housework done by a woman who also held down a full-time job. Cummings J. described the deceased as a "truly remarkable wife and mother" and explained her contribution to her family:

"She handled the family bookkeeping and accounting and assisted her husband in his garage business and boat building venture. In addition to working at a full-time job, caring for the three children and assisting her husband, she was a busy and active homemaker performing many of the gardening chores, indoor and outdoor painting, cooking, baking, washing, ironing, and laundry, as well as any shopping, without any outside the household assistance. She also had the care of her elderly mother-in-law who lived with the family. Mrs. Kwok did sewing and mending for the family, preserved fish which her husband caught and fruits and vegetables which she raised in the garden or bought in season. It was her responsibility to clean and maintain both houses, the family home and the rental property, and to do the necessary redecorating of the latter when the tenants changed. She prepared lunches for the children and her husband, made their breakfasts and cleaned up before they set off for school and work each day before leaving for work herself... She was active in the children's schools and learned sign language to assist Martin, the retarded son, to speak. She also cut the family's hair. Prior to the accident

her health was good – it had to be. All her spare time apart from work, in the evenings and on weekends, was devoted to the care of her home and family."⁸

In the result, Mrs. Kwok's non-monetary contribution to her family's welfare was adjudged to be worth about \$15,000 per year. Other cases have adopted a similar approach.⁹ It is important to note that these figures do not even measure the full value of a homemaker's services, but only the portion of that value that has been lost to her family.

Measurement issues and problems in fatal accident cases

As a result of the developments described above, it is now well established that the loss to family members of unpaid work is compensable, whether the deceased was a female or male.¹⁰ In most jurisdictions, damages under this heading are compartmentalized into two components: loss of homemaking services; and loss of care, guidance and companionship or affection. The former loss is usually measured by reference to statistics indicating either the cost of a 'replacement homemaker' or the market value of the 'catalogue of services' formerly performed by the deceased. The latter loss is generally compensated by the award of an arbitrary, and modest, conventional sum – currently about \$20,000.

In the *Kwok* case, for example, the plaintiff apparently based the claim upon a catalogue of services approach, itemizing and valuing each component of household production. The judge accepted this approach as a basis, but was of the opinion that it produced an exaggerated amount (\$23,342 per year) and held that instead of breaking down the award item by item, the judge should make a fair estimate of a global sum (\$15,000 per year). In addition, the court awarded a small sum for child care and \$20,000 for the surviving child's loss of love, guidance and affection.

The determination of individual awards is complex. The court must calculate the economic contribution that would have been made by the deceased to each family member had she lived. This involves a huge amount of speculation, as the court must estimate the expected life span of the deceased before the accident, and determine the present value of the total economic benefit that would have accrued to the family members.

In determining the value of unpaid labour, courts admit the expert testimony of rehabilitation consultants, economists, actuaries, and professional

caregivers. All of these experts rely upon statistical information – frequently that generated by Statistics Canada. The case of *Franco v. Woolfe*¹¹ considered the nature of the evidence necessary to value domestic work. The trial court had measured the loss to the family by reference to the estimated contribution to gross national product and the cost of substitute labour. The Court of Appeal varied the amount on the basis that the damages should be more individualized. Referring to the expert evidence regarding average contribution to GNP, the court stated:

"...this evidence should not have been admitted. In assessing damages for the death of a wife, the Court must determine the value of the services rendered by a particular wife to a particular husband; evidence of the value of services rendered by the average Canadian housewife to the average Canadian husband is irrelevant to this determination."¹²

Notwithstanding its rejection of the evidence, the Court of Appeal did not overrule the award. It accepted, on the facts of the case, that the amount awarded was a defensible estimate of the deceased's actual contribution to her family, measured on a replacement cost basis. However, the Court of Appeals' insistence on highly individualized evidence has significant implications for the litigation process, as it raises the costs to both parties of preparing and presenting their case. This problem, which particularly affects poorer litigants, is a common thread in all of the areas canvassed in this paper.

Valuing contributions from unpaid labour raises other difficult issues.¹³ Money, of course, can never compensate for the loss of a family member. And even accepting the limitations of money, one wonders about the accuracy of the market proxies that we typically use to measure even the economic contribution of a domestic partner or mother. The exercise is also complex and expensive. In addition to estimating the deceased's expected pre-accident life span, a court must also determine the rate at which unpaid labour would have been performed over that life span. Unlike most paid labour, household production does not simply stop at age 60 or 65 (though the time spent will vary over a person's lifetime). The measurement exercise then requires an assessment of all the functions performed by a homemaker and the adoption of "market equivalents" (cook, cleaner, manager, maintenance worker, contractor, chauffeur, nurse, planner, etc.). The selection of equivalents is, of course, fraught with normative judgments. Is a

homemaker a short-order cook or a dietary planner and chef? Is she a child-care worker or a psychologist and educator? Once these judgments have been made, a court must then assess the time devoted to each of these tasks, and the portion of the total benefit that would have accrued to each individual family member. It may make adjustments for quality differentials and must then identify appropriate wage rates. The Supreme Court of Canada has, on several occasions, referred to the process of damages quantification as an exercise in "crystal ball gazing." In the conclusion of this paper we return to the problems of cost, complexity and access to justice.

II. Unpaid work and personal injury litigation

It is in the area of personal injury law (as opposed to fatal accident compensation) that patriarchal assumptions about the nature and value of "women's work" have been exposed most obviously. It can be said without too much overstatement that, until recently, the law failed entirely to recognize the personal loss suffered by an injured woman when, as the result of an accident, she was no longer able to engage in unpaid work.

An important component of any personal injury award, in addition to the cost of care and non-pecuniary damages for pain and suffering, is the award for lost earning capacity. What the court must do is assess the pre-accident earning capacity of the victim and the severity of the disability. A lump sum is awarded representing the resulting loss in earning capacity, conceived of as a capital asset.¹⁴

In the case of individuals who are fully employed in the paid work force at the time of the accident, the exercise is relatively straightforward. The courts determine the estimated pre-accident working life span of the plaintiff, his or her likely earnings over that period (adjusting for evidence of both positive and negative contingencies such as promotion or sickness), and then discount the stream of earnings to a present value.

By way of contrast, unpaid labour is practically ignored. Until recently, when a married woman (homemaker) was injured, she would have no claim whatever for lost earning capacity. Instead, her husband might maintain an action for loss of consortium and loss of services. The loss to the husband would, as in fatal accident cases, be based on the replacement cost of domestic services. These actions were premised on the assumption that the injury caused a loss to the husband as opposed to the wife personally, and were based on proprietary and patriarchal assumptions that have only recently been jettisoned in most provinces.

The action for loss of services and loss of consortium are regarded as sexist and have been legislatively abolished in most jurisdictions.¹⁵ Yet, instead of immediately creating new rights in women to sue for their lost working capacity, these reforms seemed simply to create a vacuum. No longer could the husband claim for loss of services, but neither could the homemaker make any claim for loss of her personal earning capacity. Ironically, while judges could see that a loss might be suffered by a woman's family, they could not see that any loss was suffered by the woman personally.

The continued invisibility of household production

Very gradually, women have begun to receive some compensation for lost capacity to perform work in the home. Yet there are numerous ways in which the law still fails in this regard.

The marriage contingency

Assessments of pre-accident earning capacity are frequently adjusted for negative contingencies such as unemployment, sickness and so on. However, certain special negative contingencies are sometimes applied to awards to women. By far the most common "special" deduction against awards to women is the 'marriage contingency.' Applied most often against young, unmarried women, the theory is that had the plaintiff not been injured, there is a chance that she would have left the work force to assume family responsibilities and would not, therefore, have had maximal earnings as though she had remained a steady labour force participant.

The clearest example of this deduction is the oft-cited case of *Caco v. Maple Lodge Farms Ltd.*¹⁶ The plaintiff was a young woman who, at the time of the accident, was employed as a senior X-ray technician with the prospect of receiving a promotion. Notwithstanding this promising future, the judge refused to base the award on her lost earning capacity, stating:

"Had she not been injured it is quite possible, in fact probable, within at least a few years she would have married and I assume, as is very common now, that after marriage she would continue to work for a time. This would still give her in all likelihood an expectancy much less than the working life expectancy of 37.8 years mentioned earlier. Had she been able to marry it is quite likely, on the basis of the evidence given before

me, that she would have had a family of children and therefore the likelihood of her continuing in her position as an X-ray technician would be problematical."¹⁷

This deduction from a woman's award to reflect the probability of marriage and family responsibilities occurs in a large number of cases.¹⁸ Another example is *Quick v. Nicholls*.¹⁹ The plaintiff, a married woman was awarded only \$75,000 for lost earning capacity, partly on the basis that, at the time of the accident she was a homemaker and not, therefore, "gainfully employed." The court explained:

"Hers is not the case of one who has had a proven track record of continuous employment outside the home. She struck me as a very home and family centred person who had been, for long enough, the mistress of her own time and activities. It is far from certain that she would have been able and willing to continue until age sixty-five to submit to the capricious yet exacting demands of what may fairly be described as assembly line work having among its consequences the disruption of family life and the substantial diminution of time spent together with her husband."

The deduction for marriage is premised on the assumption not only that women may leave the work force, but also that in doing so, their earning capacity is somehow eliminated. This is incorrect. A decision to leave the paid work force does not in itself destroy one's earning capacity. The capacity remains intact, but is deployed to other forms of production.²⁰ Moreover, the deduction would be largely offset if it were recognized that the unpaid work performed by homemakers was evidence of continued productivity and continued earning capacity.

It is important to note that no such deduction has ever been made from a man's award. Indeed, marriage may enhance the court's assessment of a male plaintiff's earning capacity. An example is the 1988 case of *Lang v. Porter*.²¹ The plaintiff, a 20 year old male, had a very poor school record and work history. This led the trial judge to a low assessment of his lost earning capacity. But on appeal the award was increased, partly by reason of the plaintiff's recent marriage. McEachern C.J. rejected the argument that his past work history should be held against him stating:

"With respect, this ignores the likelihood that a young man who has now taken on the responsibilities of a wife and family would probably settle down to a conventional economic lifestyle. Such is a far more likely scenario than the one inferred by the defence from the plaintiff's spotty teen age work history or to respond immediately to the economic realities he faced following his accident."

What these cases illustrate is how assumptions about, and interpretations of, conventional social roles work in favour of men and against women. Awards to men are never reduced by reason of the fact that but for the injury they might have married and raised children, which would be costly, either in terms of direct expenses or foregone income. And this is how it should be. Having a family is expensive and may result in reduced wealth. But it does not necessarily affect earning capacity; it only affects how one spends one's income or, in the case of men and women who temporarily leave the work force, how one utilizes one's working capacity itself. The same reasoning should apply in the case of female plaintiffs. The fact that they may marry and even leave the work force should not be taken to eliminate the value of their earning capacity.

Implicit and statistical deductions

The deduction for the contingency of marriage is often express, but may also be implicit in large contingency deductions that are left unexplained.²² It is also frequently contained in the plaintiff's own expert evidence. This occurs where the evidence is based upon gender specific earning statistics which themselves already ignore the value of any unpaid work.

Statistically, women as a population group earn far less than men. First, there are fewer women in the paid work force than there are men. Secondly, even those women who are in the paid work force are less likely to have full-year full-time jobs. Only 51% of women earners are full-time, full-year employees, as opposed to 68% of men.²³ Thirdly, even those women who have full-year, full-time jobs, still earn less than their male counterparts. Part of the explanation for these wage gaps is that women continue to carry the primary burden of household labour and management. Many women work only part time, or leave the waged work force (either temporarily or permanently), in order to deal with family responsibilities; or their career prospects are constrained by such responsibilities. Thus, to use gendered earning statistics to estimate earning capacity (and they are used)²⁴ automatically

incorporates into the calculation a marriage contingency deduction. Because the statistics used do not include any valuation of unpaid labour, they discount entirely the value of work done in the home, and the earning capacity evidenced by that work. Actuarial and statistical methods thus reinforce the invisibility of women's economic contributions and vastly understate their productive capacities.²⁵ Damage awards based upon these statistics will likewise radically understate the true economic losses suffered by women.

It should be noted that even where no marriage deduction is made – that is, where the earnings of full-time female employees are used as the base for the calculation – there is still a problem. The earnings even of full-year, full-time female employees continue to be significantly lower than the male equivalent. To use these statistics, therefore, will still incorporate into damages calculations the systemic discrimination that women face in the paid workforce.

Early retirement

Even where a woman is a full-time employee at the time of the accident, and likely beyond childbearing years, her gender may nevertheless operate to reduce her award because of a presumed likelihood of early retirement. An example is *Bouhey v. Rogers*.²⁶ The fifty year-old plaintiff had been in the work force for twelve years prior to the accident. Low L.J.S.C., however, reduced the requested award for lost earning capacity on the ground that she would have been unlikely to remain a full-time employee until retirement.

"With her husband continuing to earn a good income she may have decided at some point to cease employment outside the home and direct her energies to non-remunerative pursuits. There is also the possibility that she may have to devote her time in the future to the care of her husband whose health is not good."

Once again, it may be true that some men and women will retire early from the paid work force in order to take on additional domestic work. The fact that they voluntarily leave the work force does not in itself diminish their earning capacity and, at the least, their continued economic contribution to their household should be allowed as evidence of such capacity.

Compensation for unpaid working capacity

Courts have certainly not been entirely insensitive to the problem of gender discrimination in personal injury law. During the last two decades, various means have been found to provide modest compensation to homemakers for lost earning capacity. These methods have been recounted in detail elsewhere and we will simply summarize here.²⁷

Indirect recognition of unpaid working capacity

Sometimes, as a component of the cost of care, the plaintiff will be given some funds to purchase help around the home.²⁸ In other cases, the lost ability to work in the home has been characterized as "lost enjoyment of life" and modestly compensated as a non-pecuniary loss. For example, in the case of *Bourton v. England*,²⁹ the court assessed non-pecuniary damages on the basis that after the accident the plaintiff had "difficulty vacuuming, peeling vegetables, cleaning out a bathtub, doing laundry..." The award of \$35,000 in this case was designed partially to ameliorate this "loss of enjoyment of life." In some cases, homemakers have been arbitrarily awarded conventional sums set at the poverty line, to acknowledge that while not employed for a wage, they would likely have been able to earn a subsistence income.³⁰ Other times, injured homemakers have been awarded amounts to compensate for the lost "chance" (occasionally quite slim) that but for the accident they might have chosen to enter the work force.³¹ Another strategy is to fashion an award for lost family income. This approach accepts the assumptions about women that have traditionally been made by the courts. However, it seeks to turn those assumptions to the advantage of the plaintiff. So, for example, in the case of a young unmarried woman, probable earnings will be reduced by reason of the chance of marriage. Yet, using those same statistics, we know that had she entered into a relationship with a man, it is likely that his lifetime income would be greater than hers, and that she would likely share in this increased income. This loss has occasionally been compensated.³²

Direct valuation of housekeeping capacity

Despite these various attempts to provide some compensation to homemakers, it is only very recently that courts have sought directly to compensate homemakers for the direct economic loss of the ability to perform unpaid work. The

leading case in the personal injury area is the 1991 Saskatchewan decision in *Fobel v. Dean and MacDonald*.³³ The 51 year-old female plaintiff was severely injured in an automobile accident. Prior to the accident she worked full time in the family bakery business and was also the primary caretaker in the home. At trial the plaintiff was awarded nothing specifically for lost homemaking capacity. On appeal, Justice Vancise reversed this decision, holding that where there has been a diminution in the ability to engage in housekeeping, that injury is an economic loss that should be compensated.

Justice Vancise began his judgment by discussing the old approach of compensating a third party for loss of services provided by the victim, calling it "antiquated, if not sexist" and concluding that the loss of ability to work in the home should be treated as a personal loss to the injured person. He then outlined several approaches to quantification of a loss of housekeeping capacity. The major approaches that compete for acceptance are the opportunity cost and replacement cost approaches. The former measures the loss by reference to what the plaintiff *could* have earned in the marketplace, on the theory that the economic value of work in the home is equivalent to what has been given up in order to do such work. The latter approach measures the value of work in the home either by determining the cost of a substitute homemaker or the cost of a 'catalogue of services.'

Vancise J rejected the opportunity cost approach on the basis that it does not value the homemaking itself, but rather some extraneous activity that the plaintiff has given up, thus potentially leading to "widely disparate results." Presumably, the concern here is that two homemakers with different educational attainments, would be compensated very differently notwithstanding that they are doing exactly the same work. Vancise, J. thus concluded that a replacement cost approach would be the most equitable in the circumstances, and that the cost should be determined by combining the substitute homemaker and catalogue of services approaches. The substitute homemaker approach bases the replacement cost on "what it would cost to replace an injured homemaker to perform "all the tasks," not just domestic labour, performed by a person of equal ability and qualifications." The catalogue of services approach involves assigning the homemaker's time to a number of "occupations such as chef, nurse, counselor, etc., and that time is multiplied by the community's fair market salary of each occupation and is totaled to arrive at a weekly salary."

On the basis of the testimony from doctors and a home economist, Vancise J accepted that the

average time spent on homemaking by working mothers with children was 27 hours per week. On the basis of a finding that the plaintiff was about 70% impaired in this regard, he concluded that this amounted to a 15 hour a week loss resulting in a capital sum of \$80,000.³⁴ The judge further held that while compensation for loss of home *management* services should be compensated at a higher rate or on some other basis than the above calculation, there was no evidence before the court upon which to make such a finding.

There have been numerous developments already in the short time since the *Fobel* decision. It has been followed in both Saskatchewan and British Columbia, though in B.C., damages for diminished housekeeping capacity have been denied in some cases because the household duties will be taken over by a family member. In Ontario, the award was denied to a woman who also had a full time job outside the home.³⁵ The judge held that where the plaintiff works full time, housekeeping is only 'incidental.'

"If it is 'sexist' to use the pre-Fobel approach to viewing damages of this sort, is it not equally sexist to adopt an approach that assumes as its basis that the wife will always do all the housework? In a modern society in which two-income families are more the norm than the exception, it is more appropriate to view both partners as being equal in this as in all other aspects of the marriage and, by doing so, housework is in fact being shared."

With respect, this new assumption of equality in the home is not supported by the data. Women continue to carry the primary burden of homemaking and this partially accounts for their lower labour force participation and lower earnings. A preferable approach is to acknowledge that both men and women do housework, that both should be compensated for any diminished capacity in this regard, and that women typically do more and should therefore be compensated more. In at least one case, a male plaintiff has received modest compensation of \$300 per year for diminished housekeeping capacity.³⁶ The judge explained:

"A person gains economic benefit by earnings from his occupation, and, additionally by doing for himself those things, such as building his own garage or mowing his own lawn, which produce an economic gain or saving. This multiform loss is categorized under "loss of homemaking capacity".

It is an economic loss and must not duplicate the loss of the enjoyment which he would otherwise have taken from doing these things for himself, which latter loss is an amenity of life to be considered under the head "nonpecuniary damages" and is subject to the trilogy cap."³⁷

Comment

These developments are to be welcomed, but they are not without their problems. The available data on household services is rather thin. Moreover, because they are based upon averages, they will be of only limited utility so long as courts continue to insist upon individualized evidence of quantity and quality of household production in individual cases. Thus, as in the case of fatal accident litigation, the generation of individualized evidence of lost housekeeping capacity and its value is complex, controversial and expensive, creating the same problems of speculation and access to justice. Similarly, the selection of method remains a matter of controversy, as does the selection of values. To many, the replacement cost of household labour is not necessarily an accurate or satisfying measure of its real value to a family, nor of the true earning capacity of the plaintiff. At best, the evidence is producing low-end estimates that may in fact reproduce more systemic gender (and other) bias. We will return to these problems in the conclusion.

While the replacement cost approach is dominant, some have suggested that an attractive and simple alternative to measuring unpaid work is the opportunity cost approach.³⁸ Such an approach emphasizes the notion of earning *capacity*, and insists that a voluntary decision to engage in unpaid labour does not necessarily reduce such capacity. Moreover, it also suggests that such capacity may be measured not only by the market wages for the type of work that is being performed in the home, but by the market wage of the work that has been *given up* to take on work in the home.

The conceptual basis for valuing earning capacity is to treat it as a capital asset.³⁹ The value of a capital asset has nothing to do with the way in which it is currently being employed, or indeed the way it is likely to be employed. Instead, it is valued by the amount that it could command if put to its highest use in the market (compare expropriation valuation). This method does not value earning capacity by reference to wages that the plaintiff likely *would* have earned but for the accident; rather, it is based upon the wages that the plaintiff

could have earned but for the accident. In *Benko v Eliuk*⁴⁰ the court explained this concept in the following fashion:

"For example, a housewife, qualified as a teacher may plan a career as a home engineer, with only a reluctant notion of abandoning that position for a career in teaching. At the same time, if unfortunate circumstances demand it, or if through a change of life expectation or inclination she was compelled to do so, she might be obliged to return to the work force, and her earning capacity as a teacher represents a continuing form of insurance. Where a wrongdoer eliminates that capacity to earn a living, she is entitled to be compensated for the loss."

The opportunity cost approach has, on occasion, been utilized in the United States. In *Morrison v. State*⁴¹ the Alaska Court of Appeal upheld this approach in principle. There, the trial court had based its award to a 13 year-old female plaintiff on the assumption that she would have worked for only five years before marrying and leaving the work force. The Court of Appeal sent the matter back for a new trial, stating that:

"...impairment of earning capacity is the permanent diminution of the *ability* to earn money. Appellant is correct in her contention that the trial judge should have made his award for appellant's lost earning *capacity* rather than "lost earnings." It may not be assumed that because some women become housekeepers that they thereby lose their earning capacity."⁴²

The opportunity cost method is not without critics. First, valuing opportunities is speculative and expensive (where experts are involved). Secondly, some are concerned that the opportunity cost approach is overly generous to those individuals who have chosen a more leisurely life.⁴³ Thirdly, as Justice Vancise pointed out, the opportunity cost approach treats individuals who are doing the same work very differently if they can establish that they had different opportunities (even where those opportunities are hypothetical only). Finally, the opportunity cost approach does not solve the problem of systemic bias. To the extent that evidence concerning a person's opportunities is drawn from social science data, such data will reflect the systemic bias against women (and others) that occurs in the marketplace.

III. Unpaid work and family relationships

Among the legal and financial issues which must be sorted out upon the breakup of a marital or common-law union is the question of how property accumulated during the relationship is to be divided between the parties. The fact that one spouse alone holds legal title to the property is no longer conclusive. Under certain circumstances the non-owning spouse is entitled to a share of such property when the marriage ends. However the legal rules governing the division of marital property are embedded with assumptions, both implicit and explicit, about the value of unpaid domestic work and the extent to which it entitles homemakers (usually women) to an interest in property purchased by the other partner in the relationship. These assumptions also influence how lawyers and judges interpret and apply the law.

There are several different common-law doctrines and statutory schemes under which a former spouse or partner might advance a property division claim. Although they overlap and intersect to a large degree, there are various reasons for choosing one legal route over another in particular circumstances. For analytic purposes we can distinguish broadly between claims based in family law, and claims based in business law. This section explores some specific issues around the valuation of unpaid work in each of these areas.

A. Unpaid work and family law

The common law of family property reflected the same assumptions and values about household work as the law of personal injury. Prior to the sweeping reforms of the 1970s, the law typically apportioned family assets to the spouse who had directly paid for the property.⁴⁴ The indirect contributions of the non-owning spouse (through child rearing and household management) were usually ignored entirely.

The harshness of this regime has been ameliorated by reforms in every province. The new family law statutes create a presumption of equal sharing upon marriage breakup. In many provinces the legislation is based on an express recognition that "child care, household management and financial provision are the joint responsibilities of the spouses and that inherent in the marital relationship there is equal contribution, whether financial or otherwise..."⁴⁵

The new statutory presumption of equal sharing seems on its face to obviate the need to measure the precise value of unpaid contributions to the acquisition of family property, and in many cases this is its effect. However there are a number of

gaps in the statutory presumption, and in these areas the valuation of unpaid labour has become extremely important. First, property division laws apply only to couples who have been legally married. Second, some of the provinces restrict the presumption of equal sharing to family 'property', and do not extend it to business assets or other property classified as 'non-family' assets. Third, the legislation always gives judges a discretion to depart from the presumption of equal shares if they believe that is necessary to avoid an injustice. For these reasons, data on the contribution of the non-owning spouse to the acquisition or maintenance of the property remains an essential ingredient of many property division claims.

Common law relationship and property division

None of the provincial family law statutes extend property division rights to common-law relationships. The term "spouse" is defined for these purposes to include only heterosexual, legally married couples.⁴⁶ This is particularly problematic when one partner (typically, though not always the woman in a heterosexual relationship) makes non-monetary contributions to the household and to the acquisition of property, yet legal title to the property is formally vested in the other partner. Until very recently, such contributions frequently went unrecognized and uncompensated.

There are numerous examples of the non-recognition of domestic work and other indirect contributions to family wealth. In *Connors v Connors*⁴⁷ the plaintiff and defendant, while unmarried, had lived together for 34 years. The plaintiff had raised the children and looked after the home, but was held not to be entitled to any interest in it. Noel J. characterized the plaintiff's contribution as 'unremarkable': "she stayed at home, as a housewife; he worked at his trade and earned the money to pay for all."⁴⁸ Noel J. concluded:

"The plaintiff did not contribute, directly or indirectly, towards the purchase or improvement of the property in which she claimed an interest, and the defendant has not been unjustly enriched. True, she did all that could be expected of her, as if she were his spouse, but she did no more... It has long been the law that faithful performance of spousal functions did not entitle a spouse or a person cohabiting with another person to a beneficial interest in property owned by the spouse or person. The Matrimonial Property Act was enacted

to change the existing law with respect to spouses, but it did not change the existing law with respect to cohabiting persons not bound by matrimony."⁴⁹

The situation has improved in the past decade under the leadership of the Supreme Court of Canada. In a series of decisions involving cohabiting couples, the court has dramatically developed the law of unjust enrichment and the remedy of the constructive trust. Some of the more notable cases are: *Pettkus v. Becker*,⁵⁰ *Palachik v. Kiss*,⁵¹ *Sorochan v. Sorochan*.⁵² Most recently, in *Peter v. Beblow*, decided on March 25, 1993, the Supreme Court of Canada strongly affirmed the economic value of unpaid domestic work.⁵³ In this case the (female) plaintiff and (male) defendant had lived together for 12 years in a home owned by the defendant (and purchased prior to the relationship). They had merged their families (he with two children, she with four). The defendant was the primary wage earner, but the plaintiff had done nearly all the work in the home, inside and out. She also worked part time outside the home. The defendant did not pay the plaintiff for her work, and the property was in his name alone (the mortgage was paid off while the couple lived together).

The claim in *Peter* was based on the emerging law of unjust enrichment which occurs in situations where (a) there has been an enrichment of one party; (b) a corresponding deprivation of the other; and (c) there is no juristic reason for the deprivation. McLachlin J (for the majority) held that the tests were satisfied.

"The appellant's housekeeping and child-care services constituted a benefit to the respondent (1st element), in that he received household services without compensation, which in turn enhanced his ability to pay off his mortgage and other assets. These services also constituted a corresponding detriment to the appellant (2nd element), in that she provided services without compensation. Finally, since there was no obligation existing between the parties which would justify the unjust enrichment... there is no juristic reason for the enrichment."

The defendant argued that there should be no restitution because the services were rendered as a gift, as part of their domestic bargain, or that for public policy reasons such services simply should not give rise to legal claims between domestic

couples. McLachlin J rejected these arguments in strong terms.

"The notion that household and child-care services are not worthy of recognition by the court fails to recognize the fact that these services are of great value not only to the family but to the other spouse... The notion, moreover, is a pernicious one that systematically devalues the contributions which women tend to make to the family economy. It has contributed to the phenomenon of the feminization of poverty..."

Justice Cory concurred with this view. He said:

"Women no longer are expected to work exclusively in the home. It must now be recognized that when they do so, women forego outside employment to provide domestic services and child care. The granting of relief... should adequately reflect the fact that the income earning capacity and the ability to acquire assets by one party has been enhanced by the unpaid domestic services of the other."

Remedial issues

Where the law of restitution is deployed to recognize unpaid contributions to property there are at least two possible remedies. A court may order a cash award (damages) based on an assessment of the value of the services rendered (*quantum meruit*). Alternately, the court may order that the plaintiff has an interest in the property itself (a constructive trust). In either case, there must be some valuation of the services. A *quantum meruit* claim is based upon the reasonable value of the services performed.⁵⁴ Where the court chooses to impose a constructive trust, the extent of the property interest awarded is related to the amount of the claimant's contribution. McLachlin J said in this regard:

"While agreeing that courts should avoid becoming overly technical on matters which may not be susceptible of precise monetary valuation, the principle remains that the extent of the trust must reflect the extent of the contribution."

Regardless of which remedy is chosen, the valuation exercise is fraught with difficulties, and will likely remain a somewhat rough and ready estimate rather than a precise calculation of the exact contributions of the parties. As Cory J said, "the balancing of benefits conferred and received in a matrimonial or common-law relationship cannot be accomplished with precision... Ordinarily the trial judge will be in the best position to estimate the contribution made by each of the parties. The nature of the relationship, its duration and the contributions of the parties must be considered."

The courts have not settled on any one method for valuing the extent of the contribution. Two general approaches compete for acceptance: the value received approach and the value survived approach. The former seeks to place a cash value on the services provided. The latter starts with the value of the property and goes on to determine what portion of that value is attributable to the claimant's contribution.

Where the remedy selected is the constructive trust, McLachlin J expresses a strong preference for the value survived approach. It avoids some of the practical problems of quantifying precisely benefits and burdens, and "arguably accords best with the expectations of most parties [since] it is more likely that a couple expects to share in the wealth generated from their partnership, rather than to receive compensation for the services performed during the relationship."

In the *Peter* case itself, the trial judge had assessed the "value received" by the respondent at a very modest \$350 per month for 12 years (\$50,400). This figure was based on the salary paid by the defendant to the last housekeeper he had hired before he and the plaintiff began living together. This amount was then reduced by 50% to reflect the benefit received by the claimant herself. The trial judge then awarded full ownership of the property to the plaintiff as a reasonable equivalent. The Supreme Court took a somewhat different approach, though arrived ultimately at the same conclusion.

Similar valuation problems arise when the remedy chosen is a *quantum meruit* award of cash damages. Two fairly recent cases illustrate the variety of techniques the courts have used to place a value on the services provided. The first is *Chrispen v. Topham*.⁵⁵ Here, the plaintiff and defendant lived together for a year. Shortly after moving in together they entered into a contract whereby the (female) defendant agreed to pay the (male) plaintiff (who owned the house) \$250 per month rent, and to share expenses equally. When their relationship broke down, the plaintiff sued the defendant for \$3,282

which was owing under this agreement. The defendant alleged that the agreement also implicitly contained a term whereby they would share the burdens and benefits of their relationship equally, but that she had done almost all the household work. Her counterclaim was successful. The judge accepted that she had done 1,692 hours of work, and that half of the benefit of this work accrued to the plaintiff. The value of these services was determined simply by applying the minimum wage, producing a sum of \$3,595. In the result, the plaintiff owed the defendant the balance of \$312.

A quite different valuation method was used in *Herman v. Smith*.⁵⁶ The parties in this case lived together for six and a half years. The home was owned by the defendant and had been purchased prior to the relationship. The court held that the plaintiff's housekeeping efforts over the years had not contributed to the purchase or appreciation of the property, but did help to maintain it and provided a benefit to the defendant. The court had before it two sets of data. The first was based on hourly time allocations to domestic work and the second on annual earnings for female housekeepers, servants and related occupations on a full-time basis. The court chose the latter alternative which produced a figure of \$35,000. This figure was then reduced by 50 per cent to take into account the benefits received by the plaintiff from her own work and in terms of room and board and "the other material effects of the relationship during the six or seven years that it existed."

Some courts have clearly moved to fill the gap left by family law statutes with respect to common-law relationships, by developing a doctrine of unjust enrichment which attempts to recognize the value of unpaid domestic work and its potential contribution to the acquisition and maintenance of property.⁵⁷ The Supreme Court of Canada's decision in *Peter v. Beblow* consolidates this trend and hopefully ensures that it will be followed in all lower court decisions. However the remedies which may be granted for unjust enrichment depend heavily on what data the court uses to assess the value of such services. Detailed, accurate and accessible statistics on the productive value of unpaid work are therefore of critical importance in this area of the law.

Non-family property

When dealing with traditional 'family property' (for example the family home), the law has moved substantially in the last decade to recognize the worth of unpaid labour in the accumulation of wealth. However, the treatment of business assets is a different matter. Here the law has been slow to

challenge the assumption that unpaid work performed by women does not contribute to the value of business assets owned by their husbands or common-law partners. Many of the decisions reflect unstated beliefs that women are inclined to spend their time doing domestic-type work, and that such work has little or no productive value for the family business.

Traditionally, on family breakdown, the law insisted on a rather rigid separation of family and non-family property. One of the more notorious examples is *Murdoch v. Murdoch*.⁵⁸ In this case, "the spouses over a period of some fifteen years improved their lot in life through progressively larger acquisitions of ranch property to which the wife contributed necessary labour in seeing that the ranches were productive." The majority of the Supreme Court of Canada denied her claim to an interest in the ranch property. Among other reasons for doing so, they emphasized, was the fact that the claim was not simply to the matrimonial home (as in some of the earlier cases), but rather to "a one-half interest in the respondent's ranching business." The contribution of the plaintiff, they said, was no more than "the work done by any ranch wife," and did not establish that she had "contributed" to the acquisition of the property.

The first attempts at statutory reform preserved this distinction, by limiting the presumption of equal sharing to property classified as 'family assets'. Under the old *Family Law Reform Act* in Ontario, for example, the non-owning spouse had no presumptive right to share in non-family assets such as a business.⁵⁹ The court could make such an award where there had been a contribution of "work, money or money's worth in respect of the acquisition, management, maintenance, operation or improvement of property, other than family assets." However some earlier decisions failed to recognize unpaid domestic work as a form of contribution. Indeed the Supreme Court of Canada held in *Leatherdale v. Leatherdale*⁶⁰ that the wife was not entitled to share in non-family assets, and that the trial judge had been "wrong in bringing into account the work of the wife in the home." It endorsed the view that a "wife is not entitled to [such] an award ...simply because she has been a zealous wife and mother, freeing the husband for the pursuit of great income and assets which may become non-family assets."

A few provinces have abolished the distinction between family and business property. Ontario now looks to the entire fruits of the marriage and gives each spouse a presumptive right to one-half the value of all property accumulated by the other spouse while they were married.⁶¹ However most

provinces still maintain the distinction, and problems persist despite the addition in some provinces of statutory language which refers explicitly to household work as one form of potential contribution to non-family property.

One example is the B.C. *Family Relations Act*, which creates a presumption that *family assets* will be divided equally. However, business assets legally owned by one spouse only may not qualify as family assets.

46 (1) "Where property is owned by one spouse to the exclusion of the other and is used primarily for business purposes and where the spouse who does not own the property made no direct or indirect contribution to the acquisition of the property by the other spouse or to the operation of the business, the property is not a family asset."

Notice that the statute provides that the property will not be excluded from division where the non-owning spouse has made a direct or indirect contribution to its acquisition, or to the operation of the business. The statute also provides expressly in section 46(2) that "...an indirect contribution includes savings through effective management of household or child-rearing responsibilities by the spouse who holds no interest in the property." The Supreme Court of Canada has confirmed in *Elsom v. Elsom* that a contribution in the form of household management and childrearing alone will bring the other spouse's business property into the pool of divisible "family assets".⁶² The court also indicated that once an indirect contribution has been proved, there is no need to demonstrate the precise value of the contributions in determining the parties' shares. Rather, the presumption of equality should ordinarily prevail: "While contribution of a spouse, direct or indirect, may be a governing consideration in determining which are family assets, this is not so in deciding their apportionment between the spouses..."⁶³

It appears, however, that some B.C. courts have continued to award a lesser share of business assets to wives who have made indirect contributions to the value of the business. There is a discretionary power under section 51 to reduce one spouse's interest to less than 50% if the court is of the opinion that an equal division would be unfair. A recent study by the Law Society of B.C. on *Gender Equality in the Justice System* concluded that the courts "generally value the husband's financial contribution to business assets far more than the woman's contribution to the home and family. Often the court adopts a limited financial approach

to the concept of contribution under section 51 and, as a result, women are awarded very small shares in business assets."⁶⁴

Despite extensive statutory reform, claims to business property on marriage breakdown remain problematic. Better data on the value and effect of unpaid work in the context of a family business may help in this area. Ideally, the statistics would show not only the worth of household labour in isolation, but would also draw connections between the productive value of such labour and the growth of business assets. What lawyers and courts need in these cases are figures which show how the activities of both partners in the relationship contribute to the family economy considered as a whole. Such information might help to break down the assumed dichotomy between "marketplace" and "household" labour which tends to make women's work invisible in the present legal system. A similar problem exists for women who advance their claims under business law, rather than family law. This is discussed in the next section.⁶⁵

B. Business law and the family

When a dispute arises over ownership or control of a family business, often at the end of a marital or common-law relationship, the parties may seek relief under the law of partnerships or corporations, instead of (or in addition to) pursuing family law remedies. It is perhaps not surprising that business law has given very little recognition to the productive value of unpaid work by a spouse, since it has developed primarily in response to market relationships. Indeed family law compares very favourably to business law in this regard, despite the problems mentioned in the last section.

The following is a brief discussion of some specific areas of business law where statistics about unpaid work would be valuable.

Establishing partnership in a family business

A partnership exists in law when two or more people are "carrying on business in common with a view to profit".⁶⁶ Establishing that one is a full partner in a business, as opposed to a mere employee or agent, carries with it significant legal rights.⁶⁷ Subject to contracts between the partners, these include the right to share equally in profits, to participate in management, to consent to major decisions such as the admission of new partners and to review financial information pertaining to the partnership business. In addition, the legal presumption is that

partners are entitled on dissolution to an equal division of any residual capital.

In determining whether a partnership exists the courts have regard to a number of factors, including the following:

- whether there was any express agreement to carry on business in partnership,
- whether the parties have shared profits and losses, and
- the respective contributions of the parties to the business, either of capital or labour.

A number of problems arise when these criteria are applied to family businesses, where one family member (typically the husband) holds legal title to all or most of the business assets. First of all, spouses tend not to use the legal discourse of "partnership" in talking about their joint enterprise. Although they may speak of everything being "ours" or "working together to get ahead", the courts have not regarded such statements as constituting an express partnership agreement. One example is *Romas v. Romas*.⁶⁸ Here, the plaintiff and defendant lived and worked together for 25 years, raising a family of five children. The judge concluded,

"From the evidence as a whole, I can only arrive at the conclusion that the condition that existed in reference to this farm was the same as exists on practically every other farm in this country. The two young people got married with the intention of farming. At that time there was no consideration as to a partnership. They carried out their plans and operated the farm, both doing their full share to make it a success... [But] to hold that during casual conversation the terms "yours", "mine", or "ours" used in referring to the property of the husband and the home constitute evidence of a partnership agreement, would be absolutely wrong. There must be something more definite before it could be held that such a relationship existed..."

Similarly, the sharing of profits and losses usually tends not to involve any explicit agreement as to percentage shares. Rather, aggregate household income may simply be used to defray all family expenses. Serious problems also arise in

measuring the respective contributions of husband and wife to the family business.

The courts have tended to receive with skepticism women's claims that they have contributed to the family business and are entitled to be paid out as partners. They appear to begin with a presumption that women spend most of their time on household chores and child care, and assume further that such work does not contribute to the business. In order to overcome these presumptions the wife must prove she has done an extraordinary amount of business-type labour in addition to her domestic work.

Two fairly recent cases involving family farms illustrate this phenomenon. Ironically, a partnership was found to exist in both cases. However the important thing to notice for our purposes is how the courts got to this conclusion. In both cases they drew a firm distinction between the domestic and business aspects of the farm enterprise, and held that the woman's domestic work could not in itself be regarded as a contribution to the business sufficient to make her a partner.

In *Berg v. MNR*⁶⁹ the taxpayer and his wife each reported one-half of the income from the family farm for income tax purposes, on the basis that they were partners. The husband was reassessed on the grounds that all the income belonged legally to him. In finding that Mrs. Berg was indeed a partner in the farming business the Board made the following comments:

"In the present instance, the appellant's wife is a mother of three who looked after her children and carried on her household chores as well. *These activities of course have no direct relationship with the farm operations.*"

"However, her activities which she stated under oath she did daily, whether it be taking care of the cattle, looking after the bees, marketing the grain and alfalfa seeds, keeping farm records and accomplishing other farm chores, are indeed related to the farm operations and *extend well beyond what is normally required or expected from an ordinary housewife and mother.*" [emphasis added]

Thus, while the taxpayers succeeded in their argument that they were partners, the case reinforces the assumption that household and

enterprise are distinct and that household labour does not contribute to the business.

In *Beaudoin-Daigneault v. Richard*, the Supreme Court of Canada issued a general caution "against the danger of concluding too readily [*sic*] to the existence of tacit partnerships" between estranged conjugal partners.⁷⁰ At trial, Ms. Beaudoin-Daigneault was declared a partner and the judge ordered a partition of the farm property she operated with Mr. Richard. The Supreme Court upheld the trial judge's decision. In his judgment for the Court, however, Lamer J warned that before finding a partnership,

"...the trial judge must be satisfied, first, that each partner has made contributions to the common fund either in money or property, or by his work. It is also clear that, *in the case of concubinaries, what is put in must not simply be the contribution to the common household, such as pooling of furniture or running the household*" [emphasis added].⁷¹

The separation of work into "household" and "business" categories seems particularly artificial in the context of the "mom and pop" business, where the spouses pool their various labours for the common benefit of the family. Moreover the presumption against treating women as equal business partners is a serious problem given the well-documented inability of family law reforms to ensure a fair division of property on marriage breakdown.⁷² To repeat what we have said above, statistics are needed not only to show that domestic labour has productive value in itself, but also to demonstrate how the management of the household by one spouse enhances the productivity of the family business.

Shareholder rights under corporate law: the oppression remedy

Many family businesses are incorporated, with the spouses (and sometimes children) holding the shares of the corporation and acting as directors, officers and employees. The structure of shareholdings and distribution of profits among family members may reflect a variety of factors, including their respective contributions to the business, an intention to share the benefits of the business, and a desire to minimize the family's aggregate taxes by allocating profits to a spouse or child with a low marginal income tax rate.

When a marriage breakdown occurs it may be possible for shareholder-spouses to seek financial remedies under corporate law statutes. One recent Ontario case, *Godinek v. Godinek*,⁷³ suggests that in applying corporate law remedies in this context the courts may look behind the parties' legal status as shareholders to their roles within the family. Where one spouse (usually the woman) has taken primary responsibility for household maintenance and child care, the court may make implicit negative judgments about the relevance and value of such unpaid work to the corporation.

Mr. and Mrs. Godinek were the sole shareholders of a corporation which was formed in 1966 – she held one of the issued and outstanding common shares, and he held the other two. The couple had four children. Although Mrs. Godinek performed some janitorial services for the corporation, she was not otherwise directly involved in the business. When they separated in 1987, Mrs. Godinek sought a buy-out of her interest in the corporation pursuant to the oppression provisions of the Ontario *Business Corporations Act*.⁷⁴ Under section 248 of that Act, the court has a wide discretion to make orders to remedy any act or conduct which is "oppressive or unfairly prejudicial to or that unfairly disregards the interests of" a shareholder.

Mrs. Godinek's request to be bought out was based on a number of complaints, including her husband's threats that he would bankrupt the business and leave the country, and his refusal to provide information to her about the corporation's financial affairs. The court accepted that Mr. Godinek was guilty of oppressive conduct, but refused to order him or the corporation to purchase Mrs. Godinek's share. Most importantly for present purposes, the court implied strongly that Mrs. Godinek had a limited financial claim against the corporation due to her lack of direct participation in the business.

The judge commented that Mrs. Godinek "received [her] share gratuitously and there was never any intention that she would be actively involved in the business." Among the judge's reasons for denying the buy-out order was the fact that Mrs. Godinek had received salary and dividends from the corporation on a regular basis in proportion to her one-third interest. This was seen as evidence of Mr. Godinek's "generosity" and his willingness to support his wife. These understandings of the Godineks' financial relationship are premised on the assumption that Mrs. Godinek's unpaid labour did not contribute to the success of the business in a way which would

justify financial recognition. The issuance of a share and the distribution of corporate profits to her could therefore be characterized as gifts rather than returns paid to her as a participant in the family enterprise. The language used by the court in denying relief to Mrs. Godinek implies that her claim is not that of a legitimate shareholder, but is really just the unreasonable demand of a spoiled wife.

Again, detailed, authoritative statistics about the value of unpaid labour and its contribution to the success of a family business could challenge these assumptions with significant effect.

IV. Conclusion, issues and problems

This survey, while incomplete, is certainly sufficient to demonstrate the increasing importance in law of accurate and accessible information on the value of unpaid labour. While the legal system has historically ignored or devalued unpaid work, the new knowledge in this area has, over the last two decades, begun to find its way into legislation and judicial findings. This, in turn, is having an immediate, and largely beneficial, impact on the lives of hundreds, indeed, thousands, of individuals – often and especially those who are least powerful and most in need.

We should caution, however, that the picture is not an entirely rosy one, and there is still a long way to go. Patriarchal attitudes are deeply embedded in law, and unpaid work continues in many instances to be trivialized and ignored. Especially as we move out of the 'private' household economy and into the 'public' world of the market economy, there is still much resistance to the notion that unpaid labour has significance. For example, while the tort system may provide some compensation to unpaid workers who are injured as a result of another's negligence, the majority of such workers (e.g. domestic workers and volunteers) are not covered by workers compensation regimes and must fall back upon personal or social insurance. In disputes over ownership and control of business property, courts receive with great skepticism women's claims that they have contributed through non-waged work.

The decision of the Supreme Court in *Peter v. Beblow* is to be applauded as a significant step forward and as a mandate for continued effort and momentum legally to recognize the value of unpaid work. Yet while this movement is unequivocally welcome, several gentle cautions are in order.

There is a tremendous attraction to the notion that unpaid work can be valued with precision and that matters of justice may be treated in a scientific fashion. Yet justice is not fully achieved by

improved statistics, nor fully comprehended by any science.

First are the problems of cost and complexity - problems that are ultimately about access to justice. In civil litigation there is a tradeoff between accuracy and efficiency. In personal injury cases, for example, fully individualized and 'accurate' data on the unpaid working capacity of a specific person would require evidence of both the quantity and quality of such work in the context of the specific household over a lengthy period of time. Such evidence requires interviews by, and expert reports from, economists, rehabilitation consultants, family counselors and others. Because we operate in an adversarial system, both sides must prepare such evidence. And this evidence is expensive - usually not worth it except in cases where the stakes are very high. Indeed, even where the size of the claim might otherwise justify the cost of marshalling the evidence, an impecunious plaintiff will often be forced to settle early for less than a court would likely award, rather than risk a much higher litigation bill.

One possible compromise, involving some sacrifice of individualization to achieve more efficient and accessible justice, would be to develop several standardized 'templates' from which lawyers and courts could work. These templates could establish conventional sums for various categories of unpaid workers, and could be used in negotiations and litigation as a rebuttable basis for damages calculation.

The problems of cost and complexity are present in the family law area as well. Following separation or divorce, women are (on average) in a far more precarious position financially than men.⁷⁵ Many women are pressured to accept financial settlements which fall short of their legal entitlement because they lack the resources to wage a lengthy litigation battle. In fact, the costs of such a battle quickly approach the total value of the assets at stake in many family law cases. To the extent that more highly developed statistics on unpaid work encourage a greater use of costly expert evidence, we run the risk of simply aggravating one of the present barriers to access.

Even for those who can afford to have their rights determined by a court, a heavier reliance on complex expert evidence will tend to advantage the party with greater financial resources. One family law scholar gives the following example of how this advantage can arise:

"There is a danger that once judges begin to rely upon expert evidence for the quantification of the economic

gains and losses from the marriage such evidence will become a prerequisite for judicial consideration of any claim...If such evidence is not provided, judges may tend to simply dismiss the claims rather than attempting to assess the gains and losses in light of general knowledge about the economic impact of marriage."⁷⁶

If our objective is to reverse the historical undervaluation of women's unpaid domestic work in family law, it would be an ironic and unfortunate twist if women were penalized because they could not afford to bring expert evidence, or could not match the quality and amount of expert evidence submitted by their male partners.

The Supreme Court of Canada has also commented recently on the undesirability of a trend towards greater use of detailed expert evidence in family law cases. In *Moge v. Moge*, a case dealing with spousal support, L'Heureux-Dube J acknowledged that expert evidence about the economic consequences of marriage to a wife may well be illuminating, but pointed out that,

"For most divorcing couples, both the cost of obtaining such evidence and the amount of assets involved are practical considerations which would prohibit or at least discourage its use."⁷⁷

McLachlin J voiced similar concerns in her minority judgment:

"This is not an exercise in accounting, requiring an exact tally of debits and credits for each day of the marriage. It is beyond the means of most parties and our overburdened justice system to devote weeks of lawyers' and experts' time to providing such a tally."⁷⁸

The Court in *Moge* did not suggest, however, that the valuation exercise should simply be avoided in favour of an arbitrary award. Rather, L'Heureux-Dube J. identified some possible ways around the pitfalls of individualized expert evidence. The most helpful of these for our purposes is her suggestion that courts might simply take judicial notice of the general socio-economic impact of marriage and divorce on women and men, and take this into account in their decision making.

As mentioned above, the idea of judges drawing on generalized information about the value of unpaid work, at least as a starting point or

presumptive basis for decision making, is an attractive possibility. Certainly it has the potential to alleviate problems of cost and complexity. However it also begins to address a more profound difficulty which we see in the valuation of unpaid labour, which we have only hinted at in this paper. The problem is that individualized valuations may subtly reinforce the notion that economic disparities are entirely a function of individual human abilities and relationships, overshadowing the systemic factors which give rise to inequality. An approach which captures the society-wide undervaluation of unpaid work seems to us to have much greater potential in the long run to change our current understandings of work and productivity.

This analysis is not intended in any way to diminish the value of statistical data about unpaid work, but rather to suggest that the types of data needed, and the manner of their presentation, deserve careful consideration. We think there is a strong need to develop statistics which provide a macro-perspective on the role of unpaid labour in our socio-economic system, in addition to data which looks at the productivity of individual members of a household or family business. This type of information could be extremely useful not only to judges, but also to government policy makers and legislators in future reform efforts.

Returning to problems of individual valuation exercises, there is also the problem of accuracy. Assessing two persons' contributions to joint property is highly artificial and accuracy is, in any event, illusory. To achieve it, a court would have to develop a totally artificial ledger of both monetary and non-monetary contributions, listing both credits and debits stretching back over the entire life of the relationship. As one author has said, "The courts simply cannot create, retroactively, a notional ledger to record and value every service rendered by each party to the other, with an ultimate set-off of the respective *quantum meruit* claims and they should not risk their credibility by appearing to try, however worthy their motive."⁷⁹

Equally important is the question whether we are selecting accurate measures of unpaid working capacity. In measuring the value of unpaid work, economists and statisticians necessarily rely on measurement tools such as 'replacement costs', 'opportunity costs' and proxy market wage rates. The selection of one over the other will affect outcomes and even once selected, a variety of further choices remain to be made, such as the selection of occupational categories and wage rates.

Do we wish to assimilate household and market values? Will we be content with the answers we

get? In the many cases that we have surveyed for this study, we have been struck by how low the numbers are. With a few exceptions, unpaid work is valued at about the minimum wage. For example, in the *Peter* case the trial judge assessed the value of the unpaid contribution of the plaintiff over her twelve years of toil at a mere \$350 per month. Similarly, in the pathbreaking *Fobel* case, the worth of the plaintiff's labour in the home was set at little more than \$100 per week.

The use of market figures to measure the value of unpaid work is not entirely satisfactory. The replacement cost approach simply is not a measure of the plaintiff's earning capacity, nor even the value of the plaintiff's work in the home. It is a measurement of what other people earn in the domestic sector. It is a measure of the cost of *housekeeping* services rather than the value of *homemaking* services.⁸⁰ This problem was recognized very early on. In the *Lett* case, which we discussed earlier, Ritchie J. expressed this problem, albeit in somewhat patriarchal terms:

"Certainly the service of a wife is pecuniarily more valuable than a mere hireling. The frugality, industry, usefulness, attention, and tender solicitude of a wife and mother of children, surely makes her services greater than those of an ordinary servant, and therefore worth more. These elements are not to be excluded from the consideration of a jury in making a mere money estimate of value."⁸¹

Even more fundamental, is the question whether *any* market measure of unpaid working capacity is fair. The adoption of market measures is based upon certain philosophical presuppositions about what it means to treat people fairly. These presuppositions are contestable and should at least be exposed to view, rather than being smuggled into the legal process under the guise of apparently 'neutral' measurement techniques. The point we wish to challenge is the idea that we simply need to sharpen our measurement tools - that the market somehow produces standards and numbers that are a morally acceptable basis for justice.

Whichever measurement technique is chosen, it is designed ultimately to measure productivity, capacity and contribution according to some market standard. These are normative concepts. In cases involving both personal injuries and the division of family property, it is questionable whether the issues should be resolved (exclusively) according to such concepts. Radically different norms might also

be brought to bear - norms having more to do with equality, need and sharing.

Two people living together do not expect that their lives are to be reckoned up at the end of the day according to some objective assessment of their individualized contributions to joint wealth. Youdan and Hovius argue that where the parties are in a longer term 'integrated' relationship, the value of their contributions should not be measured solely by market figures. "The nature of the parties' relationship, being based on a sharing of their lives, decreases the importance of the value that the market places on their respective contributions."⁸² Ralph Scane makes a similar point. He says that, except in rather short-term relationships, the quantum meruit or market value approach does not accord with the parties' expectations. "People do not normally enter into spousal arrangements expecting or relying upon receipt or payment of a market valued *quid pro quo* for itemized services performed, akin to making a contract with a maid service, or a plumber."⁸³

A similar point may be made with respect to injury compensation issues. Market measures, whether based on replacement costs or opportunity costs assume that the way to do justice is to determine what a person has lost according to the diminution in their prior capacity to 'produce,' 'contribute' or 'earn.' This is not the only possibility, of course. It is at least arguable that the care and concern due to a seriously injured person should be based upon notions of equality and need.

The final point is that even if we accept the norms of 'productivity' and 'contribution' as appropriate bases for justice, the market may not provide acceptable measures - for any measure of unpaid work that relies on data drawn from actual wage markets risks injustice. This problem occurs whether we adopt an opportunity cost approach or a replacement cost approach. Both affirm that the market is and should be the measure of all things. The replacement cost approach measures the value of unpaid labour according to what domestic workers actually earn in the marketplace. The opportunity cost approach measures the value of earning capacity on the basis of what that person *could* have earned on the market at any occupation. In both cases, the data builds back into the process significant forms of discrimination insofar as wage rates and opportunities in the market are not necessarily distributed "fairly." If the market is not "fair," there seems little point in attempting to reproduce its results when a person is injured.

This possibly radical sounding statement perhaps deserves some elaboration. If we adopt

statistics about market wages in order to determine earning capacity, the statistics themselves will re-introduce enormous gender (and other) bias. Why are the wages of domestic workers so low? Does it have anything to do with the gender and race of the individuals who labour in that sector? Does it have anything to do with the massive amount of unpaid labour that is performed in that sector? Do such wages offer an acceptable basis for doing justice? More generally, women, even full-year, full-time employees, continue to earn only about 68% of what men do. The troubling point is that the use of any of these figures in the courtroom simply reproduces the discrimination against women that occurs in the marketplace. One recent case involving catastrophic injuries to an eight year old girl provides an illustration.⁸⁴ The statistics indicated that lifetime earnings for women were only \$302,000 as opposed to \$947,000 for male university graduates.

Gender is not the only objectionable correlation. If we attempt scientifically to replicate the market in assessing wage loss we will also be reproducing race and class distinctions. This point is made most clearly in the case of young children. In one case, a court sought the aid of a developmental psychologist to determine the "life prospects" of a severely injured child.⁸⁵ Important traits which may be predictive include parental education and income, family socio-economic status, birth order and family stability. The particular child had almost everything going against him. He was from a broken home, with low family income, and the middle child of a large number of siblings. Statistically, all of these factors would have counted against him had he not been injured. Should they also count against him in court? When race is factored into the equation the results are even more troubling. In recent cases involving First Nations individuals, racialized statistics have been introduced in order to lower the awards.⁸⁶

What remains, then, is the issue of whether the law of damages should seek to replicate with precision the results that would have been achieved in an egalitarian and unfair society. While there may be good reasons to rely on market pricing in the allocation of many resources, should this system be extended in its entirety to the way in which society provides care for the victims of accidents or sorts out the consequences of the end of a relationship? Why should the concern, care and respect to which an injured person is entitled turn on a guess about how they would have fared in the unfair lottery of life?⁸⁷ Why should the standard of living and financial security of a single parent and their children depend on market-based analogies of what that person might have made as a domestic worker?

None of these remarks are intended to challenge the work that is currently being carried on to develop accurate measures of unpaid work – efforts that have already made a significant contribution to justice. The remarks are designed simply to promote a continued awareness of issues that should not be considered as settled, and as a reminder that the ultimate goal is justice.

Notes

- ¹ Originally at common law, no action was maintainable for wrongful death. This was remedied by Lord Campbell's Act, 1846, which was replicated in every province. In British Columbia the legislation is the Family Compensation Act, R.S.B.C. 1979, c. 120.
- ² *St Lawrence and Ottawa Railway Co. v. Lett* (1885), 11 S.C.R. 422, at p. 425.
- ³ *Ibid.*, at p. 445.
- ⁴ *Ibid.*, at pp. 435-436.
- ⁵ (1974), 6 O.R. (2d) 227, varied 12 O.R. (2d) 549 (C.A.).
- ⁶ *Ibid.*, at pp. 232-3. The trial court measured the loss to the family by reference to gross national product figures and the cost of substitute labour. The Court of Appeal varied the amount on the basis that the damages should be more individualized. 12 O.R. (2d) 549 (C.A.). For a commentary, see Cooper Stephenson and Saunders, *Personal Injury Damages in Canada* (1981), pp. 221-223.
- ⁷ (1988), 20 B.C.L.R. (2d) 318, affirmed (1989), 37 B.C.L.R. 236 (C.A.).
- ⁸ *Ibid.*, at p. 358.
- ⁹ See also *Grant v. Jackson* (1986), 68 B.C.L.R. 212 (C.A.); *Jantz v. Mulvahill*, Dec. 22, 1989, *Vernon Reg.* 311/88 (value of homemaking services to the family set at \$1,500 per month or \$16,800 per year); *Rhemtulla Estate v. Pal*, Nov. 24, 1989, *Van. Reg.* B880117.
- ¹⁰ For example, in *Coe Estate v. Tennant* (1988), 31 B.C.L.R. (2d) 236 (B.C.S.C.), where both parents died, the children received an equal amount for loss of household services for each parent, as well as the conventional sum of \$20,000 for the loss of each parent's love guidance and affection.
- ¹¹ (1974), 6 O.R. (2d) 227, varied 12 O.R. (2d) 549 (C.A.). In this case, the evidence established that average contribution to GNP was \$4,000 to \$4,538 per year; that the cost of procuring a substitute would be \$4,940 to \$5,118 per year. On the basis of this evidence the trial judge held that the value of the services to the deceased's husband and two children was between \$4,500 and \$5,000 per year.
- ¹² *Ibid.*, (C.A.), at p. 551.
- ¹³ See Janet Yale, "The Valuation of Household Services in Wrongful Death Actions," (1984) 34 U. of T. Law Journal 283. See also Jack Knetsch, "Legal Rules and Measurement of Economic Values: Household Production and Damage Estimates," U. of T. Law and Economics Workshop Series (1982) WSV-6.
- ¹⁴ *Andrews v. Grand and Toy Alberta Ltd.* (1978), 83 D.L.R. (3d) 452, at 469, [1978] 2 S.C.R. 229: "It is not loss of

earnings, but loss of earning capacity for which compensation must be made... A capital asset has been lost: what was its value?" (at p. 251).

- ¹⁵ In British Columbia the action for loss of consortium has been abolished by s. 75(1) of the Family Relations Act, R.S.B.C. 1979, c. 121. The action for loss of services has been abolished by s. 59 of the Law and Equity Act, R.S.B.C. 1979, c. 224.
- ¹⁶ (1968), 66 D.L.R. (2d) 126.
- ¹⁷ *Ibid.*, at p. 137. It appears that the judge in this case thought that his ruling was in fact favourable to the plaintiff. The preceding sentence to the above quote states: "It is my view that I should not take as a basis for computing part of the damages the future loss of earnings as an X-ray technician. To do so would result in calculating an amount less than would be fair compensation in the circumstances."
- ¹⁸ See, for example: *Johnston v. Bustraan*, Mar. 3, 1980, *Chilliwack Reg.* 57/78 (B.C.S.C.); *Bourton v. England*, June 29, 1987, *Merritt Reg.* 7/84 (B.C.S.C.); *Downing v. Public Trustee* Sept. 1, 1988, *Prince George Reg.* 0152/84 (B.C.S.C.); *Botero v. Kiss*, Mar. 1991, *Van. Reg.* B861207 (B.C.S.C.); *Wright v. Mason*, Mar. 1991, *Van. Reg.* B893695 (B.C.S.C.); *Oppen v. Johnson Estate*, Oct. 29, 1991, *Van. Reg.* B874366 (B.C.S.C.); *Waterhouse v. Fedor* (1986), 11 B.C.L.R. 56 (S.C.); *Sanderson v. Betts*, Nov. 29, 1990, *Kamloops Reg.* 5620 (B.C.S.C.).
- ¹⁹ June 18, 1990, *Vict. Reg.* 89/166 (B.C.S.C.).
- ²⁰ Over time, withdrawal from the paid workforce will diminish earning capacity, at least measured by an opportunity cost method. This has been recognized in *Moge v. Moge*, [1992] 3 S.C.R. 813. Nevertheless, withdrawal from the paid work force does not eliminate earning capacity.
- ²¹ Aug. 19, 1988, *Campbell River Reg.* 84/104 (B.C.S.C.), overruled July 11, 1991, *Vancouver Reg.* CA009816 (B.C.C.A.).
- ²² See, for example, *Tucker v. Asleson*, April 25, 1991, *Van. Reg.* B871616 (B.C.S.C.) in which a 63% deduction was applied to the award to an eight year old female plaintiff. See also *Pryma v. Buckler*, Apr. 2, 1990, *Victoria Reg.* 2402/88 (B.C.S.C.).
- ²³ Statistics Canada, *Earnings of Men and Women*, 1988 (1989), p. 9. See also, *National Council of Welfare, Women and Poverty Revisited* (1990), pp. 20-21.
- ²⁴ One example of this problem is the case of *Twine v. Cyr*, Feb. 12, 1990, *Victoria Reg.* 88/161 (B.C.S.C.). In this case the plaintiff, a married woman, was a full-time employee at the time of the accident. The plaintiff's own claim was based on actuarial evidence that took "account of the non-participation rate of wives with post-secondary non-university education." This modest claim was then reduced by a further 40% to account for the plaintiff's particular employment history and personality. See also *Oppen v. Johnson Estate*, Oct. 29, 1991, *Van. Reg.* B874366 (B.C.S.C.) in which the plaintiff's actuary and the judge both applied a 30% discount including "time off for family purposes" and "an economic family union that would allow the plaintiff to devote time from paid employment to her children..." See also, *Scarff v. Wilson* (1987), 10 B.C.L.R. 273 at 304, aff'd (1988), 55 D.L.R. (4th) 247 (B.C.C.A.) in which average female earnings were used to assess damages for the plaintiff (awarding \$140,000).

- ²⁵ For a critique of Statistics Canada's census methodology, on the basis that it reinforces the invisibility of women's unpaid labour, see M. Waring, *If Women Counted* (Harper Collins, 1988) pp. 118-130.
- ²⁶ June 22, 1989, Prince George Reg. 5455/85 (B.C.S.C.). See also *Friesen v. Wood*, May 11, 1990, Van. Reg. B882918 (B.C.S.C.). The plaintiff, a 39 year old hospital worker, was assumed to retire at age 60 because of the physically demanding nature of her work. Paradoxically, her award for lost earnings was also reduced because of the likelihood of future earnings based on a very positive assessment of her work ethic. In other words, the judge felt that her capacity had not been fully diminished because of her personal determination to continue working despite her injury.
- ²⁷ J. Cassels, "Damages for Lost Earning Capacity: Women and Children Last" (1992) 71 Canadian Bar Review 445; and "Gender and Damage Assessment" (Vancouver: Continuing Legal Education, 1993).
- ²⁸ While far from a complete solution, wherever there has been a diminution in housekeeping capacity the award for cost of care should certainly include a component for any domestic services that the plaintiff will require. This is not controversial. However, such awards will not adequately compensate homemakers, as they typically provide only for those services needed by the plaintiff personally. Such awards will only begin to be true compensation for diminished capacity if they provide not only for the plaintiff's personal needs, but also for any diminished capacity to labour for others. There are examples of such awards in British Columbia. In *Waterhouse v. Fedor* (1986), 11 B.C.L.R. 56 (S.C.), a portion of the award to the plaintiff was to pay for 15 hours of homemaker services per week and childcare for the plaintiff's hyperactive son. A similar case is *Busche v. Connors*, May 20, 1986, Van. Reg. B841452 (B.C.S.C.), *aff'd* Mar. 10, 1987, Van. Reg. CA006020. The plaintiff (who was 23 years old at the time of trial), received a small award for future housekeeping services (six hours per week) and future childcare expenses based on the contingency that she might have children. This decision, which also included an amount for diminished earning capacity, was affirmed on appeal. Indeed, it was adjusted moderately upwards to include an amount for house maintenance and repairs. Even more generous is the case of *Quinn v. Lafortune*, Aug. 19, 1991, New Westminster Reg. C880742 (B.C.S.C.) in which the female plaintiff's award included the cost of a live-in housekeeper and gardening services. See also: *Cherry v. Borsman* (1991), 75 D.L.R. (4th) 668 (B.C.S.C.); *Robinson-Phillips v. Demuth*, Dec. 12, 1991, Van. Reg. No B851637.
- ²⁹ June 29, 1987, Merritt Reg. 7/84 (B.C.S.C.).
- ³⁰ See, for example, *Teno v. Arnold* [1978] 2 S.C.R. 287; *Fenn v. Peterborough* (1979), 25 O.R. (2d) 399, (1980), 104 D.L.R. (3d) 174 (C.A.), *aff'd* (1982), 129 D.L.R. (3d) 507 (S.C.C.); *Penso v. Sollowan* (1982), 35 B.C.L.R. 250 (B.C.C.A.).
- ³¹ It is well established that awards for lost earning capacity are not based on present wages, but must also take into account 'lost chances.' Thus, even where the plaintiff is unwaged at the time of the accident, they may have lost the opportunity to earn. The standard of proof here is favourable to the plaintiff as it is based on the valuation of reasonable possibilities rather than probabilities. Note that this does not actually value unpaid labour, but rather values the chance of performing paid labour. However, several cases show how judges may, on occasion, make rather favourable assumptions concerning the pre-accident earning capacity of the plaintiff. This occurs where judges accept rather slim evidence of the pre-accident intentions, prospects and probable work of the plaintiff. One example may be *Oppen v. Johnson Estate*, Oct. 29, 1991, Van. Reg. B874366. Here a 35 year old single parent (a homemaker) was awarded \$400,000 for lost earning capacity. The case was reported as one that recognized the value of housework. It was not. Indeed, no award was made for the plaintiff's housekeeping capacity. Instead, the trial judge accepted that the plaintiff had intended to pursue a career in the clerical/accounting profession and that she probably would have succeeded. Another example is the case of *Olah v. Goedecke*, Dec. 2, 1992, Van. Reg. B891353. The plaintiff was a 57 year old woman with a grade 7 education and no history of waged employment. Perry J noted her industry as a homemaker and stated that the mere fact that there were no probable future earnings does not bar a claim for lost earning capacity as a capital asset. Perry J accepted the plaintiff's evidence that she had asked a friend about the possibility of part-time work at a department store and, upon receiving an encouraging response had formed the intention to apply for a job. This intention was fortified by the subsequent breakdown of her marriage and her straightened financial circumstances, and \$30,000 was awarded as the present value of 8 years possible earnings. See also *McDonald v. Nguyen* (1991), 3 Alta L.R. (3d) 27 (Q.B.). Note that this approach does not attack the root of the problem. It still assumes that earning capacity must be measured in terms of 'probable paid work.' It continues to undervalue or ignore unpaid work.
- ³² While there is no consistency in this area of the law, this argument has, on occasion been successful in British Columbia. In *Reekie v. Messervey* (1989), 36 B.C.L.R. 316 (C.A.), a 21 year old woman was awarded only \$200,000 for her lost earning capacity (based upon her scholastic record and probable career as a book keeper). At trial she was awarded an additional \$50,000 to compensate for her lost opportunity to marry. This decision was upheld by the B.C. Court of Appeal, but Lambert J.A. reconceptualized the award in less stereotyped terms. He said:
- This aspect of the damage award was called "loss of opportunity to marry... But marriage itself is not the significant point. The significance lies in the loss of an opportunity to form a permanent interdependency relationship which may be expected to produce financial benefits in the form of shared family income. Such an interdependency might have been formed with a close friend of either sex or with a person with whom the plaintiff might have lived as husband and wife, but without any marriage having taken place. Permanent financial interdependency, not marriage, is the gist of the claim. For the sake of simplicity and consistency, I will now usually call this head of loss: "lost opportunity of family income." (pp. 330-331)
- Enhancing compensation in this fashion certainly represents an advance over traditional approaches, but it is not a complete answer to the problem of gender bias. There is little consistency in the law in this area. The family income argument has frequently been rejected on the basis that valuation of the lost benefits of marriage is too speculative. It requires the court to make guesses about the plaintiff's marriage prospects, the likelihood of divorce, and the difference that marriage makes to family income. Equally importantly, the family income argument will be confined primarily to unmarried women who, by reason of the accident, are unlikely to marry. Where the court concludes that the plaintiff may still marry, no award will be made because no such loss has been suffered. Much effort will thus be expended by defence counsel to establish the 'residual marriageability' of the plaintiff - a

distasteful, unfair and unnecessary exercise. Similarly, in situations where the plaintiff is already married it will be difficult to argue that the accident has deprived her of the economic benefits of marriage (unless courts are prepared to entertain arguments about how the accident has increased the likelihood of marriage breakdown, and reduced the likelihood of remarriage). Most importantly, the 'lost family income' argument is made necessary only by reason of the law's failure to compensate women for their full personal economic loss. The argument, in fact, reinforces the patriarchal assumptions about the value of women's work and their dependency on male breadwinners. Lost family income, whether compensable or not, is not a measure of a person's earning power. The valuation of the economic benefits of marriage has practically nothing to do with either the value of work performed in the home or the productive capacities of people who perform that work. It has much more to do with traditional socio-economic patterns, the economic prospects of men, and the economic subordination of women.

Other cases in this area include: *Blackstock v. Patterson*, [1982] 4 W.W.R. 519 (B.C.C.A.) - award refused; *Newell v. Hawthorthwaite* (1988), 26 B.C.L.R. 105 (B.C.S.C.) - award refused; *Abbott v. Silver Star Sports Ltd.* (1986), 6 B.C.L.R. (2d) 83 (B.C.S.C.) - award refused (offset by refusal to make any marriage deduction); *Scarff v. Wilson* (1989), 55 D.L.R. (4th) 247 (B.C.C.A.) - award refused; *Lachance v. Davies*, May 23, 1990, Van. Reg. C880145 (B.C.S.C.) - award refused; *Tucker v. Asleson*, April 25, 1991, Van. Reg. B871616 (B.C.S.C.) - award made; *Toneguzzo-Norvell v. Burnaby Hospital* (1992), 73 B.C.L.R. (2d) 116 (C.A.) - income award to female infant based on historic earnings of married women but no upwards adjustment made for loss of marriage benefit - seems to be in error [under appeal on this point].

³³ (1991), 93 Sask.R. 103 (C.A.).

³⁴ This figure was based on an hourly rate of \$5.50 as there was evidence that domestic services cost approximately \$7.50 on a straight hourly basis, but that this amount could be reduced by 30% if the services were performed on a monthly basis.

³⁵ *Vykysaly v. Jablowski* (1992), 8 O.R. (3d) 181 (Gen. Div.).

³⁶ *Benko v. Eliuk* (1991), 95 Sask. R. 161 (Q.B.).

³⁷ *Ibid.*, at p. 165.

³⁸ See *Komesar, "Toward a General Theory of Personal Injury Loss"* (1974) 3 J. Leg. Stud. 457; R. Posner, *Economic Analysis of Law* 3d ed., (Boston: Little Brown, 1986). S.M. Waddams also endorses this approach in *The Law of Damages* (2d ed., 1991): "Where the plaintiff was not working or working at less than full capacity by choice, it would seem that the plaintiff should be entitled to compensation on the basis of what could have been earned if the plaintiff had chosen to work full time." (para 3.800) "If the plaintiff has held a paid job before the accident, of has been trained for a trade or profession, the pre-accident earnings or the average earnings in the particular trade or professions will provide a guide. In the absence of any evidence, it is suggested that it would not be unfair to base the award on the average national wage." (para 3.860).

³⁹ The Supreme Court has stated: "It is not loss of earnings, but loss of earning capacity for which compensation must be made... A capital asset has been lost: what was its value?" *Andrews v. Grand & Toy Alberta Ltd.* (1978) 83 D.L.R. (3d) 452 at 469, [1978] 2 S.C.R. 229 at 251.

⁴⁰ (1991), 95 Sask. R. 161 (Q.B.) - subsequent quotation at p. 165. One possible example is the case of *Turenne v. Chung* (1962), 40 W.W.R. 508 (Man. C.A.). The plaintiff had been working as a teacher in a religious order, returning her entire salary to the order each year. Because of this arrangement, the defendant argued that as a result of the accident the plaintiff had suffered no real loss. The court rejected this argument on the basis that it was irrelevant how the person chooses to spend their money. As Waddams argues, the result in such a case should not turn on whether the plaintiff returns her salary to her employer, or waives it altogether. The logical outcome of this approach is that a person working for a nominal wage, or no salary at all, should be compensated for their lost capacity so long as they can prove what they might have earned on the market. In Canada, use of the opportunity cost method can be detected only inferentially. Cases in which it seems to have been used include those involving young children (in which no marriage deduction is made), and those in which there is very little evidence that the plaintiff would in fact have worked (i.e. no real probability), but in which the court nevertheless makes an award for lost capacity because the plaintiff has demonstrated at least the possibility of working. See: *Olah v. Goedecke*, Dec. 2, 1992, Van. Reg. B891353 (B.C.S.C.).

⁴¹ 516 P. 2d 402, subsequent quotation at p. 404-5.

⁴² *Ibid.*, at pp. 404-5.

⁴³ D. Reaume argues that the approach, "leads to the uncomfortable conclusion that someone who has independent means sufficient to support herself and who spends her days lounging around watching television will be entitled to compensation for the full value of her abstract capacity to earn." D. Reaume, "Rethinking Personal Injury Damages: Compensation for Lost Capacities" (1988), 67 Can. Bar Rev. 82, at p. 100.

⁴⁴ For a general overview of the history and evolution of the common law in this area see *Matrimonial Property Law in Canada*, ed. W. Holland and A. Bissett-Johnson (Carswell, 1980), Introduction. The following sections also rely on *Hovius and Youdan, The Law of Family Property* (Carswell, 1991). It should be noted that the civil law of Quebec concerning marital property is substantially different in many respects, although some parallels certainly exist. Unless otherwise stated, the comments in this paper refer only to the common law provinces.

⁴⁵ Family Law Act, R.S.O. 1990, F.3, as am., s. 5(7). For similar provisions see, for example, the *Matrimonial Property Act*, R.S.N.S. 1989, c.275, as am., preamble; and *The Matrimonial Property Act*, S.S. 1979, c.M-6.1, as am., s.20.

⁴⁶ See for example the *Family Relations Act*, R.S.B.C. 1979, c.121, as am., s.1. See also *Anderson v. Luoma* (1985), 14 D.L.R. (4th) (B.C.S.C.) (holding that the term "spouse" does not include persons in a homosexual relationship).

⁴⁷ (1986), 1 R.F.L. (3d) 94 (N.S.C.T.D.). See also *Davidson v. Worthing* (1986), 9 B.C.L.R. (2d) 202 (B.C.S.C.); *Kshywieski v. Kunka* (1986), 50 R.F.L. (2d) 421 (Man. C.A.); and *Milne v. MacDonald Estate* (1986), 3 R.F.L. (3d) 206 (B.C.C.A.). As mentioned in the introduction to this section, the same problem applied to married couples before the statutory reforms of the last two decades. Housework done by a wife generally was not seen as contributing to the accumulation of property by her husband: see for example *Reeves v. LaRose* (1987), 8 R.F.L. (3d) 87 (B.C.S.C.). As in other areas,

the failure of courts to value unpaid work can prejudice men as well as women. In one leading English case the House of Lords refused to recognize a husband's non-monetary contribution to the family home on the basis that his contributions were simply in the nature of "do it yourself jobs which husbands often do": *Pettit v. Pettit*, [1970] A.C. 777 (H.L.), 796.

⁴⁸ Connors, *ibid.*, p. 96.

⁴⁹ *Ibid.*, p. 98.

⁵⁰ [1980] 2 S.C.R. 834.

⁵¹ [1983] 1 S.C.R. 623.

⁵² [1986] 2 S.C.R. 38.

⁵³ S.C.C. file no. 22258.

⁵⁴ As early as 1954 the Supreme Court of Canada had allowed a quantum meruit claim by a nephew against his aunt. The nephew had lived with the aunt for a short time and she had promised that if he "would be good to her and do such services for her as she might... request... she would make adequate provision for him in her will." The nephew took his aunt on outings, did odd jobs and errands for her and performed other small services, yet the aunt died without a will. The Supreme Court of Canada awarded the plaintiff \$3,000 as a reasonable approximation of the value of his services: *Degelman v. Guarantee Trust Co.*, [1954] 3 D.L.R. 785.

⁵⁵ (1986), 28 D.L.R. (4th) 754 (Sask. Q.B.).

⁵⁶ (1985), 42 R.F.L. (2d) 154 (Alta. Q.B.).

⁵⁷ It should be noted that constructive trust principles may also apply to legally married couples, to determine as a preliminary matter who owns the property which is subject to division under family law legislation: *Rawluk v. Rawluk*, [1990] 1 S.C.R. 70.

⁵⁸ [1975] 1 S.C.R. 423.

⁵⁹ R.S.O. 1980, c.152, as am., s.4. The Act defined "family assets" to include only the matrimonial home and any other property "ordinarily used or enjoyed by both spouses, or one or more of their children... for shelter or transportation or for household, educational, recreational, social or aesthetic purposes...": s.3(b).

⁶⁰ [1982] 2 S.C.R. 743.

⁶¹ Family Law Act, R.S.O. 1990, F.3, as am., ss.4, 5. Some property is still exempt from division, such as gifts, inheritances and personal injury damages. However there is no longer any general exclusion for business or investment property: s.4(2). The other provinces which have removed the distinction between family and non-family assets are Alberta (see the Matrimonial Property Act, R.S.A. 1980, c.M-9, s.7) and Saskatchewan (see The Matrimonial Property Act, S.S. 1979, c.M-6.1, ss.2(h), 21). Manitoba has taken a somewhat different approach. Business property and other "commercial assets" are subject to the presumption of equal division, but the court may depart from this presumptive rule more easily than in the case of "family assets". An unequal division of commercial assets may be ordered if equal shares would be "clearly inequitable", whereas family assets may be divided unequally only if equal shares would be "grossly unfair or unconscionable": The Marital Property Act, R.S.M. 1987, c.M45, as am., ss.1, 13-15.

⁶² [1989] 1 S.C.R. 1367.

⁶³ *Ibid.*, at p.1376-77. See also *Leblanc v. Leblanc*, [1988] 1 S.C.R. 217.

⁶⁴ Law Society of British Columbia, *Gender Equality in the Justice System* (1992), p. 5-35, referring to *Piercy v. Piercy* (1991), 31 RFL (3d) 187 (B.C.S.C.). See also *Tancock v. Tancock* (1990), 24 R.F.L. (3d) 389 (B.C.S.C.).

⁶⁵ It is worth noting before leaving our discussion of family law that the courts also appear poised to reexamine the value of domestic work in awarding spousal support. In *Moge v. Moge*, [1992] 3 S.C.R. 813, Mr. Moge applied for an order terminating the monthly support he had been paying to his ex-wife since their separation in 1973, following a 20-year marriage. The Supreme Court of Canada ordered Mr. Moge to continue paying support, and criticized the amount of emphasis which some courts have placed on requiring ex-spouses to become self-sufficient. L'Heureux-Dube J, writing for the majority, endorsed a compensatory model of support which would consider the economic advantages and disadvantages flowing to each spouse from the marriage or its breakdown. Although the judgment focused quite heavily on the need to compensate women for their lost opportunities in the labour market, L'Heureux-Dube J also remarked on the need to place value on the contributions women make through unpaid labour. In her view, the compensatory model "seeks to recognize and account for both the economic disadvantages incurred by the spouse who makes...sacrifices and the economic advantages conferred on the other spouse. Significantly, it recognizes that work within the home has undeniable value..." (p. 864; see also the comments of McLachlin J on p. 880). Statistics about the value of unpaid work may become very important in this area as the courts attempt to elaborate the principle of compensatory support. See also, C. Rogerson, "The Causal Connection Test in Spousal Support Law" (1989/90) 8 C.J.F.L. 95, at pp. 110-115; and C. Rogerson, "Judicial Interpretation of the Spousal and Child Support Provisions of the Divorce Act 1985 (Part I)" (1990-91) 7 C.F.L.Q. 155, at pp. 169-175 and 214-217.

⁶⁶ Partnerships Act, R.S.O. 1990, c.P.5, s.2. The same definition, with minor variations in wording, is used in all the common-law provinces.

⁶⁷ For overviews of the law surrounding the creation of partnerships and the mutual rights and obligations of partners see Hadden, Forbes and Simmonds, *Canadian Business Organizations Law* (Toronto: Butterworths, 1984), pp. 91-104; and R.C.I. Banks, Lindley and Banks on Partnership (16th ed.), (London: Sweet & Maxwell, 1990), chapters 2, 5, 6 and 15-22.

⁶⁸ [1949] 4 D.L.R. 423 (Man.C.A.).

⁶⁹ 82 D.T.C. 1571 (T.R.B.).

⁷⁰ [1984] 1 S.C.R. 2, at p. 17. This case was appealed from the Quebec Court of Appeal and was governed by the definition of partnership in the Civil Code of Lower Canada, Article 1830, which stated that, "It is essential to the contract of partnership that it should be for the common profit of the partners, each of whom must contribute to its property, credit, skill, or industry." Although the terminology was somewhat different, the law of partnership which evolved under this definition was in substance very similar to that in common law provinces (see Hadden, Forbes and Simmonds, *supra* note 67, pp.104, 105). See now the Civil Code of Quebec, 1991, Article 2186-2235.

- ⁷¹ Ibid., at p. 15.
- ⁷² See M. Eichler, "The Limits of Family Law Reform or, The Privatization of Female and Child Poverty," (1990-91) 7 C.F.L.Q. 59; Mary Morton, "Dividing the wealth, sharing the poverty: the 'reformation' of family law in Ontario" (25:2) C.R.S.A. (1988) 254; Mary Jane Mossman and Morag McLean, "Family Law and Social Welfare: Toward a New Equality" (1986) 5 C.J.F.L. 79; Carol Rogerson, "Women, Money and Equality: The Background Issues," in Equality Issues in Family Law, ed. Karen Busby and Holly Penner (Legal Research Institute of the University of Manitoba, 1990), 97.
- ⁷³ (1992), 40 R.F.L. (3d) 78 (O.C.J.).
- ⁷⁴ R.S.O. 1990, c.B.16.
- ⁷⁵ This has been confirmed by numerous studies in Canada and other countries. Perhaps the most prominent is Lenore Weitzman's comparison of the economic consequences of divorce for women and men in the U.S.: *The Divorce Revolution* (New York: Free Press, 1985), ch. 10. For Canadian data see *How Much and Why? Economic Implications of Marriage Breakdown: Spousal and Child Support*, ed. E.D. Pask and M.L. McCall (University of Calgary: Canadian Research Institute for Law and the Family, 1989); and D. Stewart and L. McFadgen, "Women and the Economic Consequences of Divorce in Manitoba: An Empirical Study" (1992) *Man L.J.* 80. Additional studies are reviewed by L'Heureux Dube J in *Moge v. Moge*, supra, note 20, at pp. 853-857.
- ⁷⁶ Rogerson, "Evidentiary Issues in Spousal Support Claims", p.269
- ⁷⁷ [1992] 3 S.C.R. 813, at p. 872.
- ⁷⁸ Ibid., at pp. 882-3.
- ⁷⁹ Ibid. 281.
- ⁸⁰ F. Pottick, "Tort Damages for the Injured Homemaker: Opportunity Cost or Replacement Cost" (1978) 50 U. Colorado L.R. 59.
- ⁸¹ Supra note 2, at p. 432, quoting from *Pennsylvania Railway Co v Goodman* 62 Penn. 332.
- ⁸² Hovius and Youdan, *The Law of Family Property* (1991), p. 138
- ⁸³ R. Scane, *Relationships "Tantamount to Spousal", Unjust Enrichment and Constructive Trusts* (1991) 70 Canadian Bar Rev. 260, at 280
- ⁸⁴ *Tucker v. Asleson*, supra, note 22.
- ⁸⁵ *Houle v. City of Calgary* (1983), 26 Alta L.R. (2d) 34. For a commentary see J.A. Sutherland, *Predicting a Child's Future Wage Loss* (1984), 42 *The Advocate* 169.
- ⁸⁶ See, for example, the fatal accident case of *Parker v. Richards*, Aug. 10, 1990, New Westminster Reg. C872133. The claim was made on behalf of the daughter of a 17 year old native Canadian single mother, herself the child of a single parent. These factors placed the deceased in "one of the lowest socio-economic prospects in the country" and operated significantly to reduce the award.
- ⁸⁷ For a similar argument regarding the inappropriateness of using "merit" or "talent" as a basis of distributive justice see John Rawls, *A Theory of Justice* (Cambridge: Belknap Press, 1971), pp. 100-104.

E. CURRENT RESEARCH

Ann Chadeau

Organisation for Economic Co-operation and Development

OECD information network on non-market household production

To begin, I wish to say how pleased I am that Statistics Canada and Status of Women Canada have been able to organize a conference that brings together such a large number of participants around the theme of measuring and valuating unpaid work.

This is evidence that the subject is currently enjoying renewed interest in many countries after being relegated to quite a low rank in the priorities and work programmes of many national and international statistical institutes. The importance of taking into account productive, unpaid household work, particularly that performed by women, has, however, been evident since the early 1920s, when national economic accounts systems were established. If the latter are to accurately reflect the size of the flows of goods and services that take place annually, the national income level, final household consumption and the real economic growth rate, these totals must take into account, in one way or another, the value of the non-market household production that members of households produce on their own behalf.

The measurement of non-market household production, or of unpaid household work, is of interest not only for national accounts, but also for employment statistics and for analyzing the division of roles between men and women, and the interdependence of the official, productive sphere and the household sphere.

I have been asked to present (in French) the recent activities of the OECD concerning household work and production. These activities have been developed in the Economic Statistics and National Accounts Division and are consequently oriented to national accounting and the macroeconomic measurement of the monetary value of household production.

1991 meeting of experts in national accounting

At the annual meeting of national accounts experts, organized by the Economic Statistics and National Accounts Division of the Statistics Directorate, held in July 1991 at the OECD, one session was devoted to the measurement of household work.

The following working papers were presented at the session:

- "La production non marchande des ménages et sa mesure" note by the OECD Secretariat;
- "Estimating the value of household work in Canada," prepared by Statistics Canada;
- "Definition of household goods and services production sector in National Accounts System in the USSR," prepared by the State Committee of the USSR on Statistics;
- "Value added in households," prepared by Statistisk Sentralbyrå of Norway;
- "Short remarks on the Polish experience with estimates of the value of unpaid household production," prepared by the Central Statistical Office of Poland and the Polish Academy of Science.

Six points for discussion were proposed to the participants:

- Is it desirable to produce estimates of the value of household production at regular intervals on a standardized basis?
- Is it necessary to develop standards for measurement methods? and, if so,
- What is the most appropriate method of measurement, or, alternatively, is it necessary to use several different methods and produce a variety of estimates simultaneously?
- What types of market activities must be chosen as substitutes for unpaid household activities?
- What definitions and what types of activities must be taken into account?
- What statistical data are currently available or will become available in the near future to implement the measurement of household work and/or production?

Not all of these questions received definitive answers. However, there was general agreement among the delegates on pursuing the production of estimates of household work, and some participants believed the field should be extended to include all unpaid work done by households (assistance provided to persons outside the household, volunteer work in charitable associations or organizations, etc.).

Some delegates were reluctant about formulating standards and norms, believing this premature and the experience gained in this area inadequate. They preferred to adopt a more flexible solution, namely, the production of a series of estimates for a single year, obtained by using various methods and, within a single method, by using a variety of variables (different rates of pay, for example).

Others, however, were in favour of pursuing consideration of the development of international recommendations to promote the harmonization of approaches and methods.

From this meeting emerged the idea of establishing a structure later known as the "information network on non-market household production" in the Economic Statistics and National Accounts Division of the Statistics Directorate of the OECD.

Information network activities

An initial objective of the network is the collection and dissemination of information on efforts undertaken to measure unpaid work and non-market household production in the Organization's Member countries. This involves:

- developing a document base consisting of methodological and quantitative studies conducted in this area by national governments, universities and public or private research centres;
- putting in place a structure to facilitate communication between agencies or persons involved in the production or use of estimates of the value of household production and to share the experience gained in this area.

A longer-term objective is the making of recommendations for future evaluations, consistent with the concepts and definitions of national accounts, to make possible greater methodological harmonization and improve the international comparability of the results.

A list of correspondents with some 140 addresses was drawn up, including all the statistical institutes of OECD Member countries, international agencies such as Eurostat, the International Labour Office, the United Nations' Economic Commission for Europe, the United Nations' Statistical Office and INSTRAW, university research groups and private individuals known to have worked or to be currently involved in this area.

A letter was sent in March 1992 to each correspondent asking that he/she send the OECD any documentation available on use-of-time surveys and methodological or quantitative studies concerning household work and household production, as well as volunteer and charitable work. Information was also requested on work in progress or being planned in this field.

This request met with a positive response. At present, the documentary base contains some 250 titles, and a complete bibliography of them has been prepared.

The responses showed that many member countries of the OECD had national surveys on use of time or had such surveys in progress. Omitting the details for each country, the list includes Australia, Austria, Canada, Denmark, Finland, France, Germany, Norway, the Netherlands, Sweden and Switzerland. New Zealand has conducted a pilot survey. Most of these countries have used or will use these data to produce estimates of household work or of total unpaid work, or, as in the case of Germany, to establish a satellite account for the household sector, including household production, or, like Australia, to develop an input-output table for the non-market household sphere.

The OECD's initiative in developing a structure for household production aroused the interest of the Director of INSTRAW, who stressed how important it is that methodological considerations regarding the use of data from use-of-time surveys and regarding procedures for evaluating unpaid work take into account the specific problems of developing countries.

At the meeting of the working group on statistics on women organized jointly by the Economic Commission for Europe-United Nations and INSTRAW that was held in Geneva in April 1992, the Eurostat representative expressed her interest in the information network in relation to the Eurostat plan for a European survey on use of time. Similarly, the representatives of the United Nations' Statistical Office expressed interest in relation to their "Gender Statistics Program."

A note by the Secretariat on the status of the household production information network and its activities was submitted to the annual meeting of national accounts experts that took place at the OECD in June 1992. There, various national delegates expressed the belief that this was a useful activity and the hope that it would continue and develop.

In addition, an information paper reporting on the activities of the network, accompanied by a complete bibliographical listing, was sent to all correspondents in July 1992.

In the context of horizontal co-operation within the OECD, two working parties, that on the role of women in the economy and that on employment and unemployment, asked that an oral report on the network's activities be presented to the national delegates at their annual meeting.

The establishment of the information network on non-market household production and the activities that developed from this were made possible thanks to the assistance of two consultants in 1992.

Methodological and comparative study on measuring household work

Following the note by the Secretariat submitted to the meeting of national accounts experts in July 1991, an article entitled "What is households' non-market production worth?" was published in the OECD Economic Studies, No. 18, Spring 1992. This article reviews the areas of economic analysis for which it is pertinent to take into account the value of household work and production. It develops a critical discussion of the somewhat conventional definition of the concept of production in the System of National Accounts. The revised version of this System, now known as SNA 1993, clarified its position concerning the treatment of productive, non-market activities carried on by households for their own consumption compared to the 1968 version. Henceforth, all goods produced by households for themselves are included in the production boundary, whereas the previous version of 1968 restricted the goods to be included to primary products consumed directly by individuals (e.g., agricultural products that have not undergone any processing), to products occasionally made for household consumption but usually intended for sale on the market (e.g., a dress made by a tailor for his child), to fixed capital goods produced for one's own account, and to major fixed capital goods maintenance projects (e.g., construction of hay barns or repair of a house's roof). To this extent, household production is better accounted for in the new version of the SNA than in the 1968 version.

On the other hand, the 1993 version of the SNA excludes from the production boundary all services except for the housing services that owners of housing provide to themselves when they occupy the accommodation (what the national accounts call "imputed rent"). These self-consumed housing

services were, moreover, already included in the 1968 version of the SNA.

Not all the arguments advanced to justify excluding services produced by households for their own consumption from the official totals are convincing.

I will quote from the draft November 1991 version of the revised SNA: "The reluctance of national accounts to impute values for the outputs, incomes and expenditures associated with the production and consumption of domestic and personal services within households is explained by a combination of factors, namely, the relative isolation and independence of these activities from markets, the extreme difficulty of making economically meaningful estimates of their values and the adverse effects it would have on the usefulness of the accounts for policy purposes and the analysis of markets and market disequilibria."

To take up only some of these arguments, it can be objected that:

- assigning a significant price to certain goods produced by households might prove as difficult as for services. If, for example, households fetch water themselves, it is probably because the market does not provide them with running water in the home. It will then be difficult to find an appropriate price for assigning a value to the supply of water. On the other hand, a household may decide to sell some of the food it has prepared for itself; in this case, the market price for assigning a value to the service represented by the preparation of a meal is readily found;
- the production of services for one's own consumption is not an activity isolated from markets. There are many links between what is produced on the market and what is produced by the household. For example, the sale of furniture in kits leads to the production of assembly services; the location of supermarkets far from downtown areas gives rise to the production of transportation services by households. Other goods offered on the market, such as prepared foods or washing machines may, on the contrary, lead to a reduction in the amount of work devoted to the preparation of meals or keeping laundry clean.

On the other hand, the magnitude of the imputation that would be necessary if all household production were taken into account constitutes a

weighty argument against its inclusion pure and simple in the official totals. It is appropriate to preserve the classical uses of national accounts and avoid making them inoperative in certain areas of economic analysis. A satisfactory solution would be to include estimates of household production in the form of memorandum items, alongside the classical national accounts statistics. A more complete treatment of household production would be to construct a satellite account of the household sector in which the value of this production, its uses, and the revenue in kind that it yields would be described.

This position seems all the more legitimate since the 1993 SNA explicitly acknowledges that the consumption of services produced by households contributes significantly to economic well-being.

The various theoretical approaches "by inputs," which consist in directly estimating the value of unpaid household work, are described in the article: global substitute method, specialist substitute method and opportunity cost method; as is the alternative approach "by output," which consists in directly measuring household production. In the first instance, by adding to the value of household work, estimated directly, fixed capital consumption, indirect taxes net of subsidies (if any) and intermediate consumption, we arrive at an estimate of household production. In the second instance, by deducting from the value of household production intermediate consumption, fixed capital consumption and, if applicable, indirect taxes net of subsidies, we can assign a value to household work.

The disadvantages and limitations of each approach are discussed.

Finally, the order of size of the results obtained by various countries that have produced estimates of the monetary value of household work is given. The results are very sensitive to the method used, the definition of the variables selected and the classification and treatment of activities. However, even minimalist evaluations produce estimates that represent more than 25% of the gross domestic product. Maximalist evaluations can reach two thirds, or even three quarters, of GDP.

An attempt is made to estimate the impact of inclusion of the value of household work on the consumption levels of households, their income and the growth of the GDP.

This exercise indicates the progress that remains to be made in harmonizing the methods and variables used in order to improve the international comparability of measurements. It also shows the

usefulness of producing estimates at regular intervals.

Study in progress

To make progress in this direction, a study on the sensitivity of estimates to the variables selected is underway. To date, the work has been concerned with the analysis of reference populations and rates of pay, which vary greatly from one study to another.

For example, we find that, if the reference populations were the same in the estimates made for Canada and New Zealand, the observed discrepancy between the relative importance of household work compared to gross domestic product would be reduced by six points.

In the approximately 30 quantitative studies analyzed, the variety of rates of pay used is extreme: we find rates estimated by respondents to surveys, rates calculated on the basis of official statistics, average hourly rates, overtime rates or the legal minimum hourly rate; we find rates net of tax and/or social security contributions, or gross rates. Some include bonuses or benefits in kind. These different practices pose a crucial question for the evaluation of unpaid household work – that of the definition of the most appropriate rate of remuneration.

Activities for 1993 and outlook for the future

To conclude this presentation on the network's activities, a contribution on household production is expected to be made to two meetings, one organized by Eurostat on "non-market services and services to households," which will be held in Luxembourg in June 1993, and the other organized jointly by the EEC-United Nations, Eurostat and the OECD on "services statistics," which will take place in Geneva in September 1993.

Additional resources have been requested for 1994 by the Statistics Department in order to develop the network's activities and pursue the analysis of the materials received. The response to this request will not be known until the end of 1993. The more member countries express their interest in this activity, however, the greater are the chances that these resources will be granted.

N.B.: Naturally, persons who are not currently on the list of correspondents and who wish to be listed need only notify me. They will receive the information letter and a bibliographical listing of the documents collected. They will also be asked to inform the network of their work in this area.

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Monetary valuation of unpaid work

Summary

This paper summarily introduces some of the complex issues raised by the monetary valuation of unpaid work invested by households in the production of goods and services which are consumed by the producing household or by related network households, without undergoing market transactions. It is argued that, although easier to implement, valuations imputing market wages to time-use data do not offer the information required for economic analysis and policy formulation purposes. The author proposes that, instead of market wages, hourly returns to labour be imputed to time-use data; this output-based valuation method presents the advantage of being compatible with national accounting data and of being more fruitful for economic analysis purposes; it requires data on households' output which, until now, have only been sporadically collected.

I. Introduction

I am grateful to Statistics Canada for organising this meeting. It is very appropriate - and not surprising - that such an initiative come from a pioneering institution in the field of unpaid work. This field will greatly benefit from international coordination and progress will come faster if experience is cumulated. Time for this presentation is short in regard of the complexity of the subject. I shall therefore perhaps sound somewhat more categoric and provocative in my statements than I would like to, postponing explanations to discussion time or to tomorrow's workshops. I also shall be induced to criticise some earlier work; these criticisms stem from the desire to build on the shoulders of our predecessors in order to produce more useful valuations. I hope these criticisms will be received as they are emitted: as a constructive contribution towards scientific progress in our common field of interest.

I was asked by the organisers to speak about the monetary valuation of unpaid work, from the methodological point of view. Thus, by definition, I shall only discuss the economic aspects; a limitation which should not be taken to imply that other aspects are considered unimportant.

Unpaid work may occur in different circumstances.

The valuation of unpaid work performed within the formal structure of organisations - voluntary work, compulsory unpaid labour, community work, unpaid family work in market enterprises, etc. - raises problems which can be solved by using wage rates prevailing in these organisations for paid work, adjusted by means of job evaluation techniques. This type of valuation will not be discussed here.

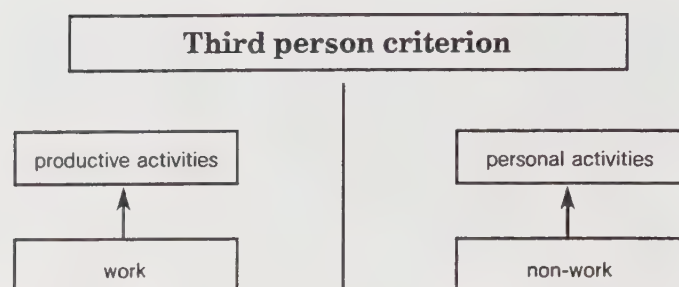
This presentation discusses the unpaid work households invest in the production of goods and services which are consumed, without undergoing market transactions, by the producing household or by related network households (family, friends, neighbours, etc.).

Labour inputs into non-market household production are usually measured in time units. This is an extremely valuable measurement *per se* which allows the drawing of a number of useful economic and social conclusions. For some purposes, however, a monetary valuation is necessary in order to establish comparisons with other economic data expressed in monetary terms. I shall try to summarily introduce some of the complex issues raised by the monetary valuation of households' unpaid work.

One particularity of household production is that both the labour inputs and the output are non-monetised. In this sense, household production is "more non-market" than other non-market activities, such as, for instance, government services not sold to the public where the labour inputs are market-regulated wages.

Before embarking on the discussion of valuation methods, a few preliminary remarks are needed.

Work is an input into production. In the market sector of the economy, it raises no conceptual problems: an activity which is paid for is considered to be work. Unpaid work also is an input into production. However, as it is not paid for, the boundary between unpaid work and non-work has to be defined; it corresponds to the boundary between productive and personal activities. Productive activities are distinguishable from personal activities by means of the "third person" criterion which states that an activity is deemed productive if it might be performed by someone other than the person benefiting from it; or, in other words, if its performance can be delegated to someone else while achieving the desired result (Reid, 1934; Hawrylyshyn, 1977; Hill, 1979). I can delegate the preparation of my meal (a productive activity); nobody can eat it for me (a personal activity).



An activity can be productive in some respects and personal in others. For instance, preparing a birthday cake for a beloved child is a productive activity (cakes can be bought) and also a personal activity (to prepare it as a testimony of love confers it symbolic personal value). For economic valuation purposes, only the economic part of the activity needs to be considered.

Personal care activities are not necessarily personal activities. For instance, setting one's hair is a personal care activity, but it can be done by a hairdresser and is therefore a productive activity. Shaving is a personal care activity which used to be performed by barbers on a much larger scale than currently in some societies, and was then unquestionably a productive activity. Bathing is a personal care activity which for the aged or the disabled may require the intervention of a "third" person, although for a person in normal condition, it would be inconceivable in most societies to consider it as a productive activity. Social norms may set some limits to the application of the third person criterion.

To hire someone for household assistance, in some crisis, appears normal in certain social groups while in other social groups the hiring is socially inconceivable and the support will be given by a non-remunerated third person of the household's network. In both cases, the corresponding activities are productive. The possibility to "hire" (to remunerate) the person who might perform the activities is not a requirement of the third person criterion.

The same productive activity (for instance, vegetable gardening) may be perceived by one person as work while it is perceived by someone else as leisure. The activity is productive if its output can be generated by a "third" person: this is the only thing that matters for economic measurement purposes; a "free time" activity or a "leisure time" activity can be productive. Whether the person performing an activity (market-oriented or non-market) derives direct utility from the performance, is irrelevant from the economic point of view. Economic valuations are deliberately limited to the

economic dimension: personal and social values attached to the performance of activities must be considered in the analysis and in the interpretation of economic measurements, but they cannot be measured in economic units.

After these introductory comments, let us move to the methodology of valuation. It is not possible to discuss in detail here the many methods which have been used for valuing unpaid work. Instead they will be just outlined, and only selected aspects will be "spot-lighted".

II. Two basic approaches to valuation

As already pointed out, in household production there are two unknown quantities: the value of unpaid work and the value of household output. In order to achieve a monetary valuation of household production processes, two basic approaches are available (Lützel, 1989):

- to borrow from the market a value (price) for household output and to derive from it the value of labour, i.e. to perform an "output-based valuation"

or, alternatively,

- to borrow from the market a value (wage) for labour and to derive from it the value of output, i.e. to perform a "wage-based valuation".

Unfortunately these two approaches yield different results.

Output-based approach. In this approach, the value of unpaid work is the unknown quantity; it is measured **as returns to labour (RL)**, i.e. it includes labour remuneration (the equivalent of a wage) and operating surplus (Goldschmidt-Clermont, 1989).

The output-based approach consists of:

- identifying household output (goods and services) and measuring it in physical units;
- determining the price of market-produced goods and services similar to those produced by households;
- imputing this value to household output (gross output value, GOV);
- deducting intermediate consumption (IC), capital amortisation (CA) and wages paid to domestic employees (WD);
- deriving from it the value of unpaid work (RL):

$$RL = GOV - (IC + CA + WD).$$

In addition, if the amount of time (H) devoted to household production (to unpaid work) is known, the **hourly returns to labour** (HRL) can be calculated (Goldschmidt-Clermont, 1983a):

$$\text{HRL} = \text{RL} / \text{H}$$

To conclude this sketchy presentation of the output-based approach, let us draw attention to the fact that it reflects the **relative productivity levels of the household and of the market**. Let me explain this statement. In the production of standard goods, market enterprises reach high productivity levels by taking advantage of mass production, of specialisation and of investments in powerful equipment; they can therefore, produce at relatively low prices. For this kind of production, the household is at a disadvantage: at market prices, the value of household output is low and so are the corresponding returns to labour. One may then observe that some households discontinue the production of these goods.

On the other hand, in labour intensive production (e.g. personalised services such as care of children, of the aged, etc.), the household is at an advantage because it is close to the consumer of the services and its overhead costs are low; the corresponding returns to labour are high.

Wage-based approach. In this approach, the value of household output is the unknown quantity; the value of unpaid work (UWV) is borrowed from the market at some wage rate (MWR) multiplied by the time devoted to unpaid work (H).

$$\text{UWV} = \text{MWR} \times \text{H}$$

In the simplest applications of the method, the value of household output is equated to the value of labour inputs. In a more elaborated form (i.e. valuation at factors cost), the labour factor is valued at some wage rate, and intermediate consumption, capital amortisation and wages paid to domestic employees are added.

In wage-based valuations, the value of unpaid household work varies exclusively according to the factors influencing market wages: productivity of the market enterprises, bargaining power of the trade-unions, etc. In this approach, the value of unpaid work bears no relation to productivity in the household. As a result, this valuation method has no explanatory power for understanding, for instance, the shifts of production from the household sector to the market sector and vice-versa.

III. Selected wage-based valuation methods

Some ten different kinds of market wages have been used in valuations of unpaid work. We shall not

discuss them all here, referring the interested reader to some of our earlier publications (Goldschmidt-Clermont, 1982, 1987a, 1987b, 1989 and 1990).

A few words of terminological clarification are required.

Under the appellation "market replacement cost," very different wages have been used. I would like to suggest that this appellation, which is too imprecise, be dropped and replaced by more specific terms making the methodologically important distinction between workers in households and workers in market enterprises:

- wage of substitute household workers,
 - generalist;
 - specialist.
- wage of workers in market enterprises producing the same good or service as the household (wage for an equivalent market function).

We shall see later why this distinction is important.

In a similar way, there is confusion about the appellation "opportunity cost of time". Strictly speaking, in the opportunity cost of time method, unpaid work is assigned an imputed value which is the wage forgone in the market by the person performing unpaid work in the household. However, under this appellation, average wages have been used, in particular in macro-economic valuations. Again, for methodological reasons which will be discussed below, it is important to be specific and to distinguish between:

- opportunity cost of time (wage forgone by an individual);
- average wage:
 - all workers;
 - all female workers;
 - female workers in service occupations;
 - etc.

In the following discussion of the four most used categories of wages, reference will continuously be made to their adequacy for economic analysis purposes. Here are a few examples of the purposes I have in mind:

- determining the contribution of unpaid work to "extended GDP" (GDP plus all presently unrecorded production);
- determining the relative share of market-oriented production and of non-market production in "extended" consumption (household level);

- comparing the extended incomes of various subgroups of the population;
- comparing the relative share of different household activities in supplying households with non-market income;
- understanding the dynamics of production transfers (from the household to the market, and vice-versa).

This kind of economic analysis has applications in socio-economic policy.

Opportunity cost of time

In the opportunity cost of time method, labour inputs into domestic activities are assigned an imputed value which is the forgone wage mentioned before. The method is based on economic theory and models designed to account for households' decisions on time and other resources allocation (Becker, 1965; Lancaster, 1966). The theory and corresponding models are constructed on a number of assumptions: households allocate time so as to maximise returns; they have the possibility of substituting market time for non-market time (in units at the margin) and vice-versa; the forgone market wage reveals the utility value the household places on the allocation of its members' time to household production; etc. Because of the assumptions involved, these models are subjected to hard criticism for their lack of validity outside of a limited circle of privileged households in developed economies.

Opportunity cost of time is a household level concept which can be used for analysing households' behaviour in their attempt to achieve social and personal goals, to maximise returns for their market and non-market work while taking into consideration particular circumstances such as occupational skills, availability of market work, employment related expenses, journey to work, etc. (Seel, 1991). Such an analysis may have applications in property settlements of divorce cases: opportunity cost is one of the many aspects which may be considered in such settlements.

Opportunity cost of time is not relevant for macro-economic measurements because it corresponds to a modelling exercise, based on a number of assumptions which do not apply to the overall population, because it calls on utility considerations which are outside the realm of economic accounting and because, most importantly, the value obtained carries no relation to the work actually being valued: with this method, the work of washing dishes carries a higher value if it is performed by a university professor rather than by a clerical employee.

Opportunity cost of time is therefore not to be retained as a method for valuing unpaid work, except at the individual household level. What is more relevant for economic measurements is the use of average wages which are discussed in the next section and which, unfortunately, are inadequately labelled "opportunity cost" in many studies.

Average wages

Average wages have been used, at the household level, as a proxy for the forgone wages which determine households' time allocation when the unpaid household member has no market wage.

Average wages have also been used in attempts to apply time allocation theory to the macro-economic valuation of households' unpaid work. If we forget the economic theory and models that have lead to the use of average wages, can we accept these wages as a valid basis for imputing a value to households' unpaid work? In other words, is it an acceptable approximation at the macro-economic level to assume that all work time, market and non-market, has the same average value? In our opinion, it is not an acceptable approximation, because most market-oriented activities have little in common with household activities and are performed in very different productivity circumstances (an aspect discussed in more detail under the next heading).

Also such a valuation is not of much use for economic analysis: time-use data already measure the labour inputs, in time units; to multiply these data by a market wage which has nothing in common with household output gives a monetary value which varies longitudinally according to the state of the market sectors of the economy, and not according to variations in household production. In other words, the multiplication by an average wage does not add useful information for economic analysis to the information already yielded by the time-use data themselves.

Wages of workers performing equivalent functions in market enterprises

In this method, labour inputs into domestic activities are assigned an imputed value which is the wage paid to workers performing similar activities in market enterprises, the similarity being determined on the basis of the output of the activity. For instance, the wages of cooks in restaurants, of ironers in laundry shops, of nursery school teachers, of garage mechanics were used for imputing a value to the time devoted by households to meal preparation, care of clothing and household

linen, care of children, repair of household equipment.

In market enterprises, productivity circumstances, as we already pointed out, are different from those prevailing in the household: capital investments are higher and production is organised differently (mass production, streamlining, specialisation of tasks and skill requirements). These circumstances affect productivity and make it possible for enterprises to pay higher wages than what they could pay if labour productivity was at the level of artisanal household production.

The wages of workers performing, in market enterprises, functions equivalent to those performed by households are therefore not a satisfactory basis for the imputation because they relate to the output of market enterprises and not to households' output and because, as a result, they do not provide information on household production for economic analysis purposes.

In addition, the imputation of wages corresponding to intensive labour in commercial enterprises raises problems when one wants to apply them to free time activities, proceeding at a leisurely pace. Another problem linked to the imputation of these wages is the valuation of simultaneous activities.

Wages of substitute household workers

In this method, labour inputs into domestic activities are assigned an imputed value which is the wage a paid worker (a generalist or a specialist) would earn for substituting unpaid household labour, i.e. for performing, in the household, the same activities.

This valuation method is particularly appropriate when estimating, for instance, the financial loss incurred by a household in case of death or invalidity of a housewife, as a result of somebody else's responsibility.

The best wages on which to base the imputation are those of polyvalent substitutes (generalists) with household management responsibilities. In some countries, there are institutionalised household substitutes who meet this definition. They are workers who may or may not have received a special course and a degree for their job and who are most often responsible for visiting elderly people or helping when a mother is ill; another kind of worker cares for several children in her own home. However, in other countries, such institutionalised household substitutes do not exist; in such cases, the

wages of generalists (housekeepers performing several different tasks) may be used, corrected, when relevant, to account for the additional responsibilities and for the continuous availability of unpaid household workers.

These wages are paid for the performance of domestic activities; they are not appropriate for other non-market productive activities such as, for instance, maintenance and repair of household premises and equipment. For these, given the scarcity of artisans in industrialised economies, small enterprises are appearing which will answer any SOS call and will perform, in the household, repairs and small jobs (plumbing, electricity, woodwork, mechanics, etc.) The wages paid to these generalist handy-men are relevant for these kinds of activities.

An often debated question is whether the values used for the imputation should be gross or net wages. The difference between net and gross wages can be quantitatively very large: in the preparatory work for the current German valuation (Schäfer, 1992), gross wages were found to be more than twice as high as net wages (Schwarz and Schäfer, 1993). The answers to this question are an illustration of the links between the nature of measurements and the uses to be made of the data. (A general problem in statistics, not only confined to unpaid work). In my opinion, for national accounting purposes, wages net of taxes and of social security contributions should be used for the imputation because unpaid labour does not generate social security flows or income tax flows. On the other hand, for household level purposes, gross wages are relevant because they correspond to a forgone expense which enables the household to attain a certain level of living without having to disburse its monetary equivalent.

For aggregate level valuations, the soundness of using wages which are linked to a given labour market is sometimes questioned. The argument goes like this: if, for instance, all unpaid housewives became paid domestic servants, or if all unpaid housewives sought employment and hired substitutes to perform domestic activities in their households, such major shifts of labour demand and supply would cause changes in wage rates and invalidate the corresponding valuations of unpaid work. This argument implies that in order to use market wages in an imputation one has to assume a complete and instantaneous transfer of labour from unpaid to paid activity. We consider this an unnecessary assumption. Transfer of labour from unpaid to paid activity (and vice-versa) is a continuous and gradual process which constantly causes changes in wage rates. On the curve of these wage rate changes, one may determine, at one point

in time and space, the market value of labour inputs without having to be concerned about what this value was or will be at another point in time. This consideration is not specific to value imputations; it pertains to all economic measurements: the prices used are the current ones and the fact they might become different in other circumstances is not taken into consideration.

To conclude this summary discussion of selected wage-based valuation methods: wages of substitute household workers are the most satisfactory wages for performing a wage-based valuation of households' unpaid work, because these substitutes work in productivity circumstances which are very close to those of unpaid household members. The imputation yields the **market value of unpaid work**. If the purpose is just to establish a rough order of magnitude of the value of unpaid work, this valuation method is satisfactory enough.

For economic analysis purposes, however, the situation is different. What is not known, because of lack of research on the subject, is how this market value relates to the value of household output. In other words, if their productive time is worth this market value, are households operating at a loss? Does their output cost them more than it would cost them to buy the corresponding goods and services on the market? The relation between wages and value of output is known for market production which is entirely monetised and for which accounts are kept; market mechanisms maintain a balance between production costs and prices: if the wage load is too high, the enterprise goes out of business. The household does not know the value of its unpaid labour and does not keep accounts; economic, financial, social or personal constraints may cause available unpaid labour to be expended for lower returns than its market value (Mueller, 1984; Nag, White and Peet, 1978). The reverse may also be true: higher returns to household unpaid labour than its market value (Cabanero, 1978; Goldschmidt-Clermont, 1983b).

The wages of household substitutes are not a satisfactory valuation basis, for economic analysis, because of their unknown relation to the value of household output. For economic analysis, it is necessary to know the (imputed) market value of household output; no wage-based valuation can yield the needed data.

IV. Implementation

After these conceptual considerations, a few words about implementation.

Wage-based valuation methods appear easiest to implement provided time-use statistics and wage statistics are available.

Market wages, however, require some elaboration before they can be applied to unpaid work. We already mentioned adjustments for responsibilities, qualifications, continuous availability, etc. when discussing housekeeper's wages.

Wages of workers in enterprises extend over a range of values for the same profession: e.g. from the cook's boy to the skilled chef. The selection, subjectively made by the researchers, greatly influences the value attributed to unpaid work. An improved version of this method will be applied in the current German valuation: it will use an average wage in the profession weighted according to the number of workers actually employed at the different wage levels (Wolff, 1992). This approach requires very detailed wage and employment statistics.

Average wages also require another kind of selection: which average should be used? All workers' average, or females', or in the services only, etc.? Here, too, the resulting possible values for unpaid work extend over a wide range which impairs the credibility and usefulness of the results.

Output-based valuations require price data and data on the volume (physical quantities) of household output.

Price statistics are widely available and adjustment techniques for quality differences and regional variations are in current use in national accounting. It may be necessary to choose between various market alternatives for household products; the decisions may be taken objectively on the basis of quality comparisons, with households being associated to the selection process.

Data on the volume of household output were collected in several partial studies of particular household activities. (For references to these studies, see Goldschmidt-Clermont, 1993). As far as we know, only in Finland were data on the volume of household output collected in a national representative survey covering all household productive activities (Finland, 1980 to 1986). The Finnish study has shown that it is possible to collect volume data on households' non-market production. However such data are not readily available in most countries and would require some ground-breaking work from national statistical offices with the collaboration of scholarly institutions.

A shortcut that would considerably reduce the data collection burden can be used in countries where time-use data are available. The shortcut consists of collecting the output data from a limited sample of the population, of calculating the hourly returns to labour (see section II, above) on this sample and then to impute these returns to labour to the national time-use data.

For macro-level purposes, both approaches (wage-based and output-based) require data on taxes, social security contributions and subsidies granted to market enterprises in order to account only for flows actually generated. Data on households' intermediate consumption expenditures and capital amortisation (consumer durables) are also necessary.

Miscellaneous problems

Questions are recurrently raised about the treatment to be given to simultaneous activities, transportation time, purchasing time, child care time, leisure activities, etc. Most of these problems arise only in wage-based valuations.

The valuation of child care is facilitated if active care, passive care and "being on call" are distinguished and valued separately.

Simultaneous activities. Clearly it is not conceivable to cumulate the wages of an ironer, a school teacher and a cook on the time devoted by a housewife to ironing, while supervising the children's homework and keeping an eye on the cake in the oven. One possibility is to value only one of these activities and to dismiss the others, which is not entirely satisfactory. In the output-based approach, all simultaneous activities can be considered in the valuation; the reduced output for each of the single tasks is apparent in lower hourly returns to labour, while the cumulated output reflects the high value of unpaid work when several activities are carried out simultaneously.

Leisure is a subjective perception which is an important consideration from the psychological and social point of view. Leisure time activities create valuation problems in wage-based valuations because it is feared that the pace of activity of the unpaid worker may be slower (it may also be faster, motivation helping!) than that of a paid worker. In output-based valuation, it is not necessary to consider whether an activity is performed in time perceived as leisure or not: if the gardener often pauses to listen to the birds, this will be reflected in his/her output of vegetables and the returns to labour will be accordingly reduced.

Transportation could be tied with the purpose with which it is related: in this procedure, driving to (market-oriented) work should be counted as a job-related activity; driving to the super-market should be counted as non-market household production; driving one-self and the family to the tennis court, as a personal activity. From the point of view of accounting for time use, this is a satisfactory solution. However, when it comes to valuing time, things become more complicated: should the same value be attributed to the time of the passive user of public transportation (who is perhaps reading a newspaper) and to the time of the driver who produces an economic service (third person criterion)? In an output-based valuation, the service rendered by the driver is valued at its output value (cost of taxi, bus, school bus, home delivery service, etc., depending on the circumstances); if a person walks or bicycles instead of driving a car, it will take him more time (higher H) and this will be reflected in lower hourly returns to labour. If driving is *per se* the purpose (e.g. "going for a ride" on a Sunday afternoon), driving becomes a personal activity (third person criterion) which has no economic value.

Purchasing is the last stage of distribution. Buying clothes for one's child is unquestionably a productive activity. What about buying clothes for one-self? Can a third person do it? Mostly not. Is window-shopping a personal activity? No third person can acquire for me the knowledge about current fashion and prices that will enable me to seize good buys when they turn up. But still, this can be considered part of the distribution process, a must in an economic system where market production takes over part of production which used to occur in households. Again, when it comes to monetary valuation of the corresponding work time, things become even more complicated: which wage to impute? In output-based valuations, the time consumed in purchasing is part of H; a skilled housewife may find that her returns to labour are higher if she knits the desired sweater than if she has to search the shops for it.

All these are tricky problems. I have argued that, conceptually, output-based valuations offer solutions; I am not arguing that implementation is easy. Aren't statisticians familiar with even more complex problems?

V. Conclusion

As a conclusion to this succinct presentation of valuation methods, I would like to insist on the relation between purposes (i.e. foreseen uses of data) and selection of valuation method.

If the purpose is, at the macro-economic level, to determine the relative amounts of unpaid work vs. paid work, one hardly needs a monetary valuation. Time-use data provide the answer.

If the purpose is to determine the contribution of unpaid work to extended consumption (consumption of market and non-market goods and services) for specific activities, comparisons can be made in physical quantities. For instance, transportation could be measured as so many passenger-kilometers provided by the market sector and so many by unpaid work. Such data can be very interesting for sectoral comparisons, but they cannot be aggregated; only monetary valuation permits aggregation.

Monetary valuations are needed for all the purposes mentioned earlier (section III). They are also needed for policy formulation. For instance, what are the costs, to the community and to households, of caring for the aged, the ill and the disabled in institutions and how do these costs compare with home-care? In most of these cases, it is necessary to know what is the actual value (returns to labour derived from output-based valuations) of unpaid work performed in the household. Valuations based on market wages are not of much help in the solution of practical problems or for economic analysis.

The inadequacy of using wage-based valuations for certain purposes is perhaps best illustrated if we consider the case of macro-economic accounting. In its present state, the current revision of the System of National Accounts foresees the inclusion, in the central framework, of all goods produced by households but not of domestic and personal services (United Nations, 1992, Chapter VI); it discusses the possibility of constructing a satellite account of non-market production which would also include households' internal services (United Nations, 1992, Chapter XXI). In other words, the satellite account would give a complete picture of non-market production, both inside and outside of the SNA production boundary.

The revision gives indications on how to proceed with the valuation of non-market production:

"Goods or services produced for own final use are valued at the basic prices of similar products sold on the market or by their costs of production if no suitable basic prices are available" (United Nations, 1992, Chapter VI, § 51).

The first part of this procedure is the general (output-based) valuation method in the central framework, adopted, for instance, for agricultural

products retained for own final consumption by farmers. The second part (the second-best: "if" ...) is the valuation at factors' cost which is used for government services not sold to the public. However, the big difference between households' services and governments' services is that, for households, the value of the major production factor requires an imputation while, for government services, it is a well-known market-regulated value.

For household production, an imputation is needed anyhow. It seems therefore conceptually more sound to adopt the output-based valuation so that, in the satellite account, all non-market production will be valued by the same method. So much from the conceptual point of view.

From the implementation point of view, wage-based valuations appear more attractive. At least in the short run, until gathering volume data for output-based valuations becomes a matter of routine, as it has become for far more complex economic measurements.

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Valuing the Un-measured Economy: The Role of Time-Use Studies¹

Government policies are designed either to maintain, or typically to change, the status quo. Knowledge of the need for change, what needs to be changed, what can or will be the object of change, and what will change, and the effects of change, depends primarily upon the knowledge – data and information – base available to inform policy makers. If the knowledge base is inaccurate or is insufficient the resulting policy at best may have no effect, and at worst may have deleterious effects. The following highlights the failure of the current tools of economic measurement to capture and present a realistic picture of total economic activity for policy guidance. Further, it shows the essential contribution of time-use measurement in addressing that failure. These points provide the rationale for a current UN Institute for Research and Training for the Advancement of Women (INSTRAW) initiative, being coordinated by the author, to help redress existing data shortcomings. That initiative will be described briefly in closing.

Economic change typically engenders several not unrelated major structural shifts. These include technological change within the productive sectors and sectoral change within the measured economy.² Concomitant with these changes are major underlying changes in the fabric of the society. The nature of "work" shifts. While the changing nature of "work" has clear gender effects, the information base required to control, rather than leave uncontrolled, those effects is missing. Also, generally there is a shifting locus of "work" from rural to urban areas.³ Concurrently shifts occur between the "market" and the "non-market" sectors. The knowledge base needed to guide economic development is grossly inadequate if it fails to reflect the interplay of market and non-market forces. Specifically, many gender and spatial shift effects of policy are invisible to policy analysts and policymakers, and yet "the first step in improving social choices is to measure progress correctly."⁴ As stated in paragraph 120 of the Nairobi Forward Looking Strategies for the Advancement of Women:

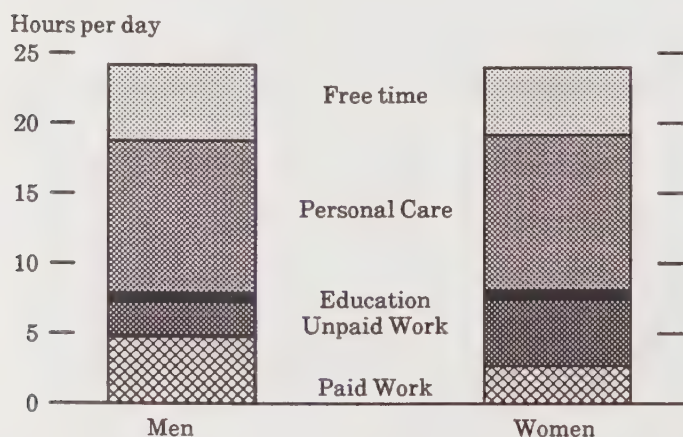
"The remunerated and, in particular, the unremunerated contributions of women to all aspects and sectors of development should be recognized, and appropriate efforts should be made to measure and reflect the contributions in national accounts and economic statistics and in the gross national product. Concrete steps should be taken to quantify the unremunerated contributions of women in agriculture, food production, reproduction and household activities."⁵

The significance of this statement can be seen in any quantitative examination of the gender division of paid and unpaid work.

Paid vs. Unpaid work

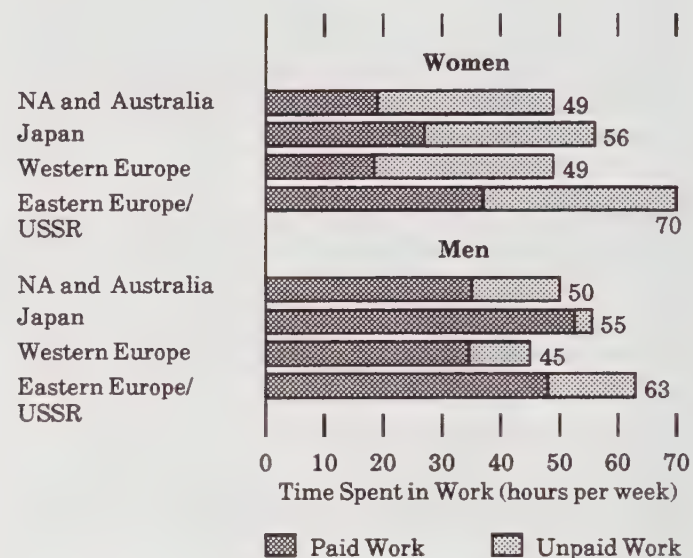
An examination of the economic accounts and labour statistics of any country or basic economics text would lead one to the conclusion that subsistence production, housework, child care and much other non-market activity is valueless in an economic accounting or employment sense. This is true in spite of the major contribution of unpaid work to total work time in Canada and abroad. In Canada in 1992, total hours of work were 7.1 and 7.2 hours per day for men and women, respectively. Of that total, unpaid work accounted for 2.6 and 4.5 hours per day for men and women respectively (Figure 1). Expressed, in terms of hours per week, Canadian women worked a total (paid plus unpaid) of 50.4 hours per week compared with a total of 49.7 hours for Canadian men. Earlier studies have shown that in all regions of the world, based on post 1976 time-use data, women allocate much more time than men do to unpaid work (Figure 2). In

Figure 1
Time Allocation to Major Activities
Canada, 1992, by gender



Source: Statistics Canada, General Social Survey.

Figure 2
Total Paid and Unpaid Work Time by
Region (1976 and later)



Source: U.N. Statistical Office, *The World's Women, 1970-1990*, (1990).

general, women tend to spend more time than do men in paid and unpaid work combined (Figure 2). Only in North America (NA) and Australia combined does men's total work time surpass that of women. However, the difference is minuscule (Figure 2). These figures, drawn from time-use studies, clearly show the significance of unpaid work. The absurdity of failing to include unpaid work activities in economic accounts has been recognized for more than two decades. However, traditional areas of non-market work are only slowly being integrated into national economic accounts and labour statistics. The slow progress has occurred, in addition to political reasons, because of both conceptual and measurement problems. However, significant academic contributions to the clarification of such problems have been made, the most recent being that of Robert Eisner.⁶

Conceptual problem and framework

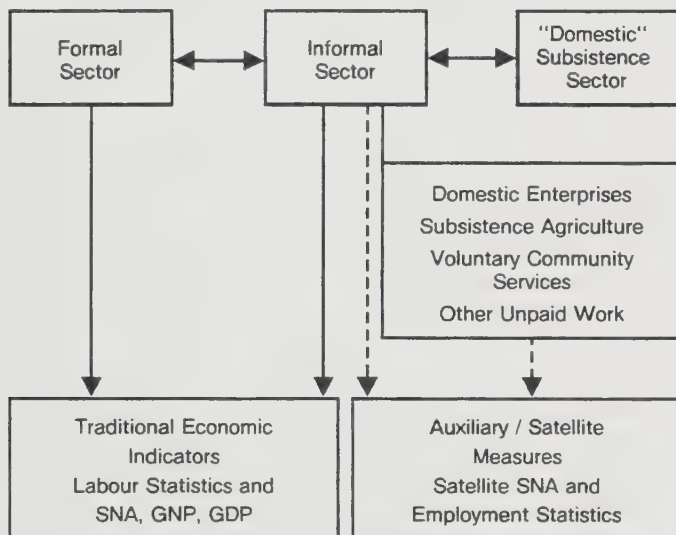
Conceptually there is still much ambiguity concerning the definition and measurement of economic and near-economic activity. This ambiguity is complicated by socio-political factors emanating from actors with differing views of the production landscape. Outside the organized market and government sectors, with well defined norms, rules, regulations and data available for statistical analysis, there is a broad category of activities which is much more difficult to enumerate. Thus, current concepts of economic activity – as expressed in the 1968 version of the System of National Accounts (SNA) – exclude

production of certain goods and all services produced for own consumption. They further exclude unpaid community services. Most of these activities fall into what has loosely been called the informal sector (micro-enterprise and subsistence agriculture; the production of goods and services within the household; and unpaid community services provided by household members) and activities, predominantly services (generally considered as pure domestic or household work) that fall outside the formal sector.

Recent debates on the issue of expanding the concept of economic production imply that most activities could be classified under three major sectors, not all necessarily considered productive within the existing economic models: (1) the formal sector, (2) the informal sector and (3) the "other" sector, which we describe as "domestic subsistence sector" (Figure 3). A significant number of equally "productive" activities still fall outside the definitions of the formal and informal sectors, and thus remain invisible and unaccounted for. There thus exists considerable interchange among "economic" activities and interactions between different socio-economic sectors that need to be recognized and/or counted, either within the traditional economic aggregates or within the proposed satellite accounts system (Figure 3).

Figure 3

The Structure of Production



There remain a number of productive activities that are conceptually covered by the definition but are technically concealed in measurements. For instance, while production, as defined in the SNA, includes all goods and certain services as economically productive, goods produced through secondary or tertiary activities are poorly collected and hence are rarely measured. Simultaneous

productive activities that are normally carried out by women are not captured in the traditional data-gathering techniques. Yet many experts still argue that the definition of the informal sector should not leave out goods and services produced for own consumption, contending that the inclusion of all activities heretofore invisible in economic indicators and statistics does not measure the importance or the irrelevance of such activities. The framework proposed does not offer an ideal definition of the "informal sector" nor does it draw exact boundaries between the different sectors where formal, informal and other activities take place. Actually one project objective is to evaluate the effectiveness of the accepted definition of informal. What is needed is to account for and define, as definitively as possible, the boundaries between formal, informal and domestic subsistence – or whatever concepts emerge from the work undertaken – such that total productive activity is accounted for.

The critical problem is not the inclusion of certain activities within, or their exclusion from either the formal or informal sectors. The most important issue is how to capture and measure effectively ALL productive activities, paid and unpaid.

The framework suggested simply identifies and recognizes the major sectors of economic production but does not confine itself to the existing definitions of concepts. Only through comprehensive and uniform data recording techniques and common measurement methods can activities that can be rightfully classified under each sector be commonly defined and valued.

Productive activities outside the informal market sphere are assumed to be falling within and/or between the informal and domestic subsistence work arena. These include small scale enterprises or trading, subsistence agriculture, caring for children and the elderly, domestic work and voluntary community services. Since these activities usually do not carry exact or regular monetary returns, they have been comfortably omitted from economic measurements. The disconnected lines in Figure 3 identify the areas where relevant concepts and methods of valuation remain elusive. Although the definition of the informal sector that is currently being proposed by ILO seems to encompass activities that should be counted within the traditional economic aggregates (SNA, GNP, GDP, etc.), still many others do not figure into those indicators. The concept of satellite accounts has also been widely discussed and seems to be providing a good compromise for counting or valuating unpaid and domestic activities. However, in the absence of common guidelines and standard

methods of counting and valuating these activities, the concept of satellite accounts has remained empty or impracticable.

Measurement problems

Measurement problems further exacerbate problems created by the lack of conceptual clarity. There are extreme situations where the greater part of non-market activity, both labour inputs and productive output, is missing from the national accounting system. This omission is due to (1) an inadequate and/or inaccurate statistical data system and (2) a deficiency of techniques to impute values to activities or production in the non-market sector. Thus, conventional measurement instruments, in view of the ambiguity of much productive activity, either omit or underestimate much non-market activity.

Measurement problems also arise since often data cannot be disaggregated by sex, even though there is clear evidence of a gender bias in the market/non-market interface. Women in particular are believed to provide the majority of non-market activity, that is activity in the production of goods and services for one's own consumption, unpaid community service, micro-enterprises and subsistence agriculture. Considering only domestic activities, an analysis of evaluations in unpaid work in developing countries concluded that women's contribution ranged from two-and-a-half times to fourteen times that of men.⁷

Evidence from some case studies suggests, for example, that street food production and its selling, generally undertaken by women, accounts for a very significant part of food for the poorer sections of urban areas in developing countries. Similarly, in developed countries the contributions of women's domestic work – including caring for the elderly, the young and "maintenance" of members of the household engaged in market sector activity – remain unaccounted for but constitute a significant contribution to productive work. Such work would otherwise need to be provided by purchase from the private sector or through public provision.

Typically women are carrying out simultaneous productive activities across two or more sectors, as demonstrated in Figure 3. However, the traditional data-gathering techniques do not and cannot capture these interactions. These interactions have to be recognized and counted either within the traditional statistical aggregates or within the proposed satellite accounts, which requires a common system of data collection, analysis and presentation.

The lack of data and thus quantification leads to an undervaluation of the economic contribution of women.⁸ Problems are manifest in terms of both production and employment. In particular, data fail to account properly for female labour force participation.⁹

Recognizing these problems, national and international statistical bodies and academic researchers have actively pursued the measurement and valuation of non-market activity. However, a great deal remains to be done in moving toward integration of market and non-market activity, into a set of integrated economic accounts. At its twenty-fifth session, in 1989, the United Nations Statistical Commission affirmed the great value to countries of further work in this area, particularly the development of technical reports on methods of compilation, valuation and analysis of women's contribution to development to supplement the System of National Accounts.

International debates and research studies have recently put to the fore many of the conceptual and methodological problems involved in capturing and valuing non-market production and employment. Relevant studies have examined measurement in terms of, among other issues, women's agricultural work,¹⁰ women's participation in the labour force,¹¹ women and development,¹² and third-world poverty.¹³ Such work has motivated and contributed to the recent extensive reviews and revisions of existing international standard definitions of concepts such as those set for the SNA and labour statistics, including the classification systems of occupation, industry and status of employment. In this context, it is important to note that attempts have been made and some agreements have been reached to reconceptualize economic concepts and measurement practices that tend to exclude non-market production activities in the whole process of data collection, production and analysis. The concept of production and the boundary set by the system of national accounts have been extended and their strict consistency with labour force concepts emphasized. This change should enable all "productive" activities except domestic subsistence work to be counted and reflected in the labour force and economic accounts systems, provided that the enumeration techniques are adequate.

Undeniably cases exist in which production in the "informal sector" is, to a large extent, already valued and counted in economic aggregates such as the GDP. Achievements to date, however, have not seemed to solve the problem concerning women. In fact, techniques more fully capturing the informal economy, while possibly favouring women in some settings, basically assure almost complete

coverage of men's activities while still excluding a significant part of women's productive activity. Within the broad spectrum of women's activities, the valuation of women's work – including domestic subsistence work in the informal and household sectors, and most importantly, their unpaid work, particularly in agriculture – have remained the most problematic. A consensus does not yet exist on the precise delimitations of activities under each category, nor are there useful methods of reflecting them in the macro-aggregates.

Measurement tasks

Goldschmidt-Clermont presents excellent overviews and compilations of studies measuring non-market activity in developed countries¹⁴ and in developing countries.¹⁵ She frames her discussion of economic evaluation methods in terms of four forms which such studies may take: volume of input, volume of output, value of input or value of output.

Goldschmidt-Clermont¹⁶ argues that time-use research plays a major role in the evaluation of unpaid work, both by providing comparable measures of household and market work and by providing, for wage-based measures, the number of work-hours to which wages are applied. She further argues that greater attention should be paid to output-related evaluations of unpaid household work. Reviewing several output-related evaluations, she concludes that the approach is feasible. She concludes that the volume of household production can be quantified and measured and an imputed value calculated by using the prices of market goods and services.

Drawing on the result of its training activities, the limitations of statistical information on the informal and domestic productive activities – presently available from the Population Census, Household Surveys, Census of Economic Establishments, Labour Force Surveys, Financial Surveys, surveys of small scale and cottage industries, and administrative records – have been repeatedly demonstrated by INSTRAW. Although information derived from these sources has been of importance, one cannot confidently determine the size, contribution and distribution of the informal sector and domestic subsistence production to the national economy by this means. Surveys have been observed to leave out those traders who are engaged in selling and producing in the open market and who, in Africa, are predominantly female. Results of population censuses and labour force surveys include relevant data on population characteristics and the employment status of respondents, but it is difficult to derive statistics on that part of the

population which is engaged in the informal and domestic subsistence sectors without further work.

An INSTRAW/Statistical Office Expert Group Meeting on the Measurement of Women's Income and their Participation and Production in the Informal Sector, held in Santo Domingo in October 1986, emphasized the importance of time-use surveys. It argued that time-use surveys are necessary as the only technique that allows deeper investigation of the value – economic and other – of an individual's non-market activity, and the relationship between paid and unpaid activity both at the individual and household level. The report of the meeting has been issued as INSTRAW/ AC.3/8-ESA/STAT/AC.29/8.

To move forward requires a more profound analysis of the time-use methodologies that have been carried out so far in both the developed and developing countries. Additionally, a comparative evaluation of different imputation techniques is essential. Work in these areas will help establish a commonality of measurements and standardized data collection methodology for capturing and valuing women's activities within and outside the recognized production boundary.

It is crucial, also, that measurement be appropriate to the varying socio-economic and cultural structures of the developed and developing societies. In particular, attention must be paid to the special nature of time use in agricultural and similar primary venues where differences in seasonality, and crop or product must be explicitly accounted for in data collection.

Information on time allocation, however measured, is imperative in order to capture participation in the market and non-market sectors and to analyze their interface. Similarly, time-use data are required to accurately account for employment/non-employment as conventionally defined.¹⁷ In order to move forward much more comprehensive methods of measurements than labour force surveys and population censuses are required. In the market sector, production is measured in monetary value. In non-market production particularly, the first step to measuring work or output is usually in time units.

Time-use surveys

The time-use survey is an important data gathering tool or technique developed to provide required data on patterns and types of activities undertaken. It provides extensive and intensive information about time spent on activities, simultaneous activities, sequences of activity, patterns of association among various categories of people, and the location of

activities. Time-use surveys which are inherently sex-specific make possible examination of issues as varied as the measurement of labour input, the management and use of time and space, family organization, integration within society and participation in societal networks. Data collected enables coverage of a full range of the various types of households and individuals, the time use of men and women working in agriculture, men and women living in an urban environment and adolescent girls and boys. Time-allocation statistics can be used to measure unpaid activities performed in the home, to analyze the relationship between market and domestic subsistence labour and to serve as a basis for quantifying domestic work in monetary terms comparable to production included in national accounts.¹⁸

Time-use surveys offer the possibility for the development of international units of measurement which could be used in different cultures to measure the duration, sequence and timing of activities. It can thus be considered as one of the potentially most useful techniques of measuring changes in social behaviours. "The delimitation of the study to the 24 hours means a sensitivity to exploring changes: time removed from one activity is necessarily transferred to some other activities."¹⁹

Time-use surveys in developed countries

Most of the well-documented studies on time-use techniques come from the developed regions of the world where the methods have the longest traditions and are increasingly becoming an important data-gathering technique. Until the 1970's, time-use surveys were primarily carried out by academic researchers. In the last two decades however, time-use techniques have gained wider recognition and application at the national level. Since the 1970's major studies have been conducted by national statistics authorities in Europe and elsewhere. Research materials have also grown from samples of a few hundred to samples of thousands, representative of the major part of the population. Some developed countries with recent time-use studies include Australia (1992), Austria (1992), Canada (1992), Finland (1987/1988), France (1985/1986), Germany (1991/1992), New Zealand (1990/1991), Norway (1990/1991) and Sweden (1990/1991). In each of these countries the studies are being used to develop time estimates of unpaid/household work.

Several European countries have replicated studies since the 1980s and further modifications and refinements of methodologies have been undertaken to fully adopt the materials to the objectives of the study and the socio-economic structure of the population.

In New Zealand, following a wide recognition of the importance and the extent of women's unpaid work in the household and the voluntary sector, the women's machinery (i.e., the Ministry of Women's Affairs) in close collaboration with the Department of Statistics designed a pilot time-use survey in 1990. The pilot survey carried out by the Department of Statistics was chiefly concerned with testing the feasibility of conducting a time-use survey involving a representative sample of the total population.

The pilot survey confirmed the success of the methodology applied and extracted information that demonstrates a clear gender split in domestic activities. From the information collected, three main categories were closely analyzed: unpaid work in the household, unpaid work in the community, and leisure activities. Preliminary results claimed that as well as measuring production within the household and the voluntary sector, time-use surveys provide other valuable information such as child care arrangements and arrangements for caring for other dependents, for example, the dependent elderly; who does what work; variables affecting labour force participation; changing patterns of work hours; how leisure time is spent; how other discretionary time is used; and how unemployed people use their time.

Furthermore, results suggested that time-use surveys give planners and policy makers a clearer picture of the interactions of the formal and informal activities and the relationships between households, the markets and government activity – or paid work vs. unpaid work. As a result of the successful results of the pilot survey, a larger scale survey that is more representative of the total population is anticipated. From then on the survey will be conducted at five-year intervals and valuations of unpaid work will be published as a supplement to the National Accounts if possible.²⁰

The importance of time-use studies in measuring activities outside the regular, organized market sphere is gaining considerable international recognition and support in the ECE region. For the 40th plenary session of the Conference of European Statisticians, attention is being drawn to the time-budget survey as a tool to measure activities outside the production boundary, particularly for the consideration of capturing the hidden economic activities and household production. The use of these surveys in capturing comprehensive data on activities outside the production boundaries for a satellite system of the national accounts is being stressed. Furthermore, greater attempts are being made to reflect activities of private non-profit institutions and volunteer labour within a broader concept of "enlarged economy" (including household).

Time-use surveys in developing countries

Very few time-use surveys have been conducted at the national level in developing countries. Among the more statistically advanced developing countries, India has carried out a time-use survey with a sample that is representative of a relatively large part of the population. The survey results yielded important insights into women's work, particularly in the informal sector. A comparison of the estimates of women's economic activities derived from intensive time-use methods with those of the national sample survey using conventional methods has demonstrated interesting results, indicating the need for further investigation of the varying degrees of work and responsibilities between women and men. A recommendation was forwarded by the National Committee on Women's Work and Employment in India for time-use surveys to be designed and carried out based on a larger, more representative sample of the total population.

Many scattered, small-scale time-use studies have been conducted by academic researchers and some commercial groups for very specific sets of objectives designed for specific target groups. In particular, anthropologists have shown considerable interest in time-allocation.²¹ Most of these studies have highlighted differences in the role of women and men within and outside the household.

Comparative time-use analysis and methodology

Although shown to be feasible in the multinational time-use study undertaken in the mid 1960s,²² there have been very few attempts made to carry out international comparisons of time-use survey results, even for the surveys conducted in the ECE countries. The major efforts in comparative analysis have centred on work undertaken using data deposited with the Multi-national Time Budget Data Archive (MLTBA) at the University of Bath, under the direction of Jonathan Gershuny of Nuffield College, Oxford,²³ and on comparative work undertaken by researchers at Statistics Finland and researchers in several other countries.²⁴

There is even less analysis of the methodology as an effective tool for capturing women's productive activities within and outside the formal market sphere. An extensive effort was undertaken recently by the Statistical Office of the United Nations in compiling statistics and indicators on time-use of women and men in economic activity, unpaid housework, personal care, and free time, standardized to the extent possible from the published results of national and sub-national surveys taken between 1965 and 1986.²⁵ The data presented show clearly the significant difference in

the time allocation of women and men in selected activities.

Problems with comparisons stem from the different time-use surveys carried out having applied different sampling methods, data collection techniques, definition of concepts and tabulation systems. Further methodological comparative analysis is required to determine the possible commonalities of concepts and methods being applied, which would further lead to developing common measurement and imputation techniques to value the time expended on unpaid housework and related activities and greater security of comparison in efforts among countries.²⁶

Standardization of data collection techniques and commonality of measurements presuppose uniformity in the definition of concepts, classification systems and specific variables. As has been demonstrated by previous studies, a wide array of experiences, resources and facilities exist between and among countries, most particularly between the developed and developing countries. Moreover, mutual benefit and common agreements can only be derived from confronting the differences and similarities contained in completed studies and work in progress. Typically, initial analyses of time-use studies were carried out in a manner most appropriate to the socio-economic and cultural circumstance of each country without concern for comparative analysis. Re-analysis of some existing time-use surveys could prove to be a cost-efficient way to provide some initial comparative information and guidance in developing new studies.

Relatively little attention has been paid in the literature to standards for the collection of time-use data. Time-use measurement must not only satisfy standard survey practice but must address some additional special problems. An examination of methodological concerns by the International Association for Time-Use Research has resulted in the preparation of guidelines, based on studies in developed countries, laying out acceptable methodological alternatives.²⁷ The document suggests that within developed countries, differing methodological approaches can be expected to offer valid and reliable data. It notes, however, the almost urgent need to develop an activity coding scheme sufficiently flexible and widely applicable to permit meaningful comparative analysis. That work needs to be expanded to encompass both the approaches and problems encountered in measuring activities in developing countries, and especially in agricultural areas. Using the experience and results of methodological and empirical works on time-use methodologies, more conclusive steps could be

undertaken to design guidelines for reaching a common agreement on the most appropriate data collection techniques and methods for imputing gender-specific values to unpaid work.

One set of criteria which should be considered when evaluating any methodology for collecting time allocation data for the extension of economic accounts, distinguishing between input and output criteria, has been developed but not implemented.²⁸ Another study considered four general areas of concern over data quality: data reliability, validity, coverage quality and time-use coding method.²⁹ Specific criteria were identified to measure each area of concern. Based on a review of ten time-use studies, the authors found that relatively few of the methodological issues which they raised were examined in the studies they reviewed.³⁰

Measurement in the agricultural sector is, at the same time, a most important and most difficult problem. A wide array of activities, crops, seasonal patterns, relevant non-regular events (i.e., droughts) and other factors greatly exacerbate many of the usual data collection problems encountered. Because of such problems, it is particularly crucial to identify, test and evaluate innovative data collection methodologies in this sector. At the same time, it will be important to ensure that any data collected is sufficiently consistent with data collected in other sectors to ensure that proper accounting and analysis can feasibly be carried out.

INSTRAW initiative

The INSTRAW initiative is being undertaken to develop an approach to the collection, particularly in developing countries, and valuation of time-use data to redress the shortcomings of existing data outlined earlier. Initially, plans are to examine time-use studies in various countries and, where useful studies exist, to build on them. As a first step, case studies in several countries will review and evaluate past work in those countries and design pilot studies to be undertaken as a second step. The initiative is going forward. Currently, case studies are under way in the Dominican Republic, Hungary, Nepal, Tanzania, and Venezuela. Consultants in each country are reviewing time-use and unpaid work measurement studies which have been done in the country. They are examining the strengths and weaknesses of the studies, thus evaluating the state of the art in the country. Based on that experience, each will design a small pilot survey which could be carried out by the National Statistical Bureau with support from INSTRAW or other funding bodies to test some of the methodological alternatives to data

collection for use in the unpaid work. The purpose of the pilot studies is to develop and test approaches to the collection of time-use data under varying conditions with a view to developing workable approaches which can be applied to national samples in developing countries.

Concurrently with, but independent of the INSTRAW initiative, EUROSTAT is developing a collaborative time-use project among its members and possibly including the Scandinavian countries. Attempts are being made by INSTRAW to coordinate significant aspects of their work with the EUROSTAT project. In particular it is hoped that it will be possible to develop a standard activity classification scheme that will facilitate the development of satellite accounts valid for cross-national comparative work among developed and developing countries.

Conclusions

Currently, there appears to be a genuine concern with the appropriateness of existing economic measures and a willingness to pursue the lines of investigation and data collection necessary to improve such measures. If the INSTRAW and EUROSTAT projects are successfully completed there will be a solid basis for developing satellite accounts incorporating unpaid work currently excluded from the SNA. Several direct benefits can be expected to flow from the projects. In particular the INSTRAW project designed to improve time-use measurement and facilitate the gender-specific quantification of total productive activity will provide several benefits. First, it will provide direct inputs into the analysis of significant policy issues. Second, it will provide a focus for work undertaken by agencies sharing a common interest in improving the economic accounting framework and in related measurement issues. Third, it will provide academics and others benchmark concepts and methodological approaches. In particular, by accounting for total time and thus all work time during a given period, the data provided by the INSTRAW project will facilitate the clarification of the boundaries among the formal, informal, and domestic subsistence sectors.

Footnotes

¹ The major portion of this paper is extracted from Project Proposal on Measuring and Valuing Unpaid Contributions to Social and Economic Development: Accounting Through Time-Use. Santo Domingo, Dominican Republic: The International Research and Training Institute for the Advancement of Women (INSTRAW), 1992.

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F. WORKSHOP ORGANIZERS, CHAIRPERSONS AND RAPPORTEURS

Workshop	Organizer	Chairperson	Rapporteur
1. Concepts and Definitions of Unpaid Work – Les concepts et les définitions du travail non rémunéré	Judith Alexander Simultaneous Interpretation	Ann Chadeau	Andrea Rosen
2. Unpaid Work and National Accounts	John Joice	Robert Eisner	Tanis Day
3. Care-giving for Seniors, the Ill and the Disabled	Robert Lussier	Sylvie Jutras	Victor Ujimoto
4. The Design of Time-Use Surveys	Doug Norris	Bettina Knauth	Andrew Harvey
5. Measurement of Volunteer Work	Penny Basset	Helen Hayles	Don McRae
6. Measurement of Household Management	Patricia Grainger	Margo Anderson	Meg Luxton
7. The Use of Statistics on Unpaid Work in Civil Litigation	Wendy Bryans	Jamie Cassels	Ralph Shapiro
8. The Valuation of Unpaid Work – L'évaluation du travail non rémunéré	Chris Jackson Simultaneous Interpretation	Marie-Thérèse Chicha	Luisella Goldschmidt-Clermont
9. Alternate Measures of Unpaid Activity – What and How	Doug Norris	Regula Herzog	Judith Stryckman
10. The Design of Input-Output Accounts for Non-Market Activity	Michael Thoen	Duncan Ironmonger	Dieter Schäfer
11. Statistical Measurement Issues in the Field of Child Care	Judith Frederick	Robin Douthitt	Donna Lero
12. Measurement Aspects of the Trade-off Between Market Work and Unpaid Work on Behalf of Family and Community	Penny Basset	Monica Townson	Mary H. Spence
13. Measuring Seniors' Contribution to the Economy and to Community Well-being	Leroy Stone	Susan Fletcher	Barry Wellman
14. The Division of Household Labour	Katherine Marshall	Rebecca Warner	Karen Secombe

G. WORKSHOP SUMMARIES

1. Concepts and definitions of unpaid work

Chairperson:	Ann Chadeau, Organisation for Economic Co-operation and Development
Rapporteur:	Andrea Rosen, Consumer and Corporate Affairs Canada
Organizer:	Judith Alexander, Copyright Board of Canada

The following people participated in this workshop:

Yoshiko Kuba	Tokyo Gakugei University
Anne Mason	Vanier Institute
Jacqueline Nadeau-Martin	Association féminine d'éducation et d'action sociale - AFEAS
Arlene Strugnell	Federated Women's Institute
Patricia Connelly	St. Mary's University
Suzanne Garon	Université de Sherbrooke
Robin McKinlay	Ministry of Women's Affairs - New Zealand
Selma James	Wages for Housework Campaign
Vandeli Guerra	Braslian Institute of Geography & Statistics
Rebecca Warner	Oregon State University
Dieter Schäfer	Statistisches Bundesamt - Germany
Chris Jackson	National Accounts - Statistics Canada
Frank Jones	Statistics Canada
Andrea Rosen	Consumer and Corporate Affairs Canada
Elizabeth Majewski	Statistics Canada
Donna Lero	University of Guelph
Sandy Duck	Status of Women Canada
Mary-Helen Spence	Ontario Women's Directorate
Louise Vandelac	Université du Québec à Montréal

The Chairperson offered an agenda which dealt with the following items:

Concepts
Definitions
Unpaid work coverage
Measurement using time
Valuation of time
Alternative approaches

A concept was described as an intuitive understanding while a definition was the concept made operational. The Chairperson proposed the concept that work is any productive activity and the definition that work is any productive activity that can be accomplished by a third person.

Lively discussion followed. Some individuals dealt with the technical aspects of defining work for the use of surveys while others saw the definition of unpaid work as a political tool. They also questioned the underlying economic model. Some claimed that these attempts to value work would still result in an under valuation of women's true contribution.

It was also brought up that the definition of work offered by the Chairperson could not comfortably deal with the reproductive activities (in contrast to productive activities) of women. Several comments were made that the dichotomisation of the social system into market and non-market spheres ignored much of the activity in the marketplace that is not work. For instance, the standard eight hour day worked by a salaried employee contains many pauses or down-time or periods of indirectly productive activity.

It is clear from what was said by several participants that valuing unpaid work will not necessarily bring about the political recognition of women's work that is sought by many groups. Some of these participants also believed that it might be the only route to even partial recognition.

The Chairperson listed the types of activities that should be included in the StatsCan survey. They were individual household activities, support systems or networks outside the nuclear household, and volunteer activities.

Household activities were broken down into sustenance for the family, cleaning and household maintenance, exterior maintenance, child and family care, and travel (in the local sense of getting from one place to another). The question was asked whether travel was a legitimate productive activity. The distinction was made between helping others travel (children to lessons etc.) and travelling to work oneself. Currently the latter is not defined as work. This brought up again the distinction between activities that are work (i.e. productive) and those that are not. Arguments were made that travel was like sleeping - that it is nonproductive. Others challenged the very definition by arguing that sleep is indeed productive.

One speaker suggested that valuing is often equated with pricing. Prices are cardinal measures. He suggested that other, less strict measures might be more useful (ordinal perhaps?) for unpaid work. He pointed out that one attribute of household production is its emotional component which cannot be treated easily by conventional measuring techniques.

The Chairperson agreed that many of these emotional components were not captured in surveys. Many are provided concurrently with other caring services, they share many aspects of "quality" and may be incorporated by allowing generous time estimates for the performance of the activities that are surveyed.

Many of the participants felt that their priorities are not addressed by simply discussing the technical aspects of surveys and the national accounting system. They wish to see women recognised as contributing to society equally with men and receiving equal rewards. For them, the current attempts to value unpaid work do not recognise all the emotional and reproductive contributions of women. On the other hand, there were several participants who felt that national income accounting was not designed to capture all human activity.

2. Unpaid work and national accounts

Chairperson: Robert Eisner, Northwestern University
Rapporteur: Tanis Day, Queen's University
Organizer: John Joisce, Statistics Canada

List of participants:

Robert Eisner	Northwestern University
Jens Bonke	University of Copenhagen
Martha MacDonald	Economics, St. Mary's University
Duncan Ironmonger	Economics Department, University of Melbourne
Mobinul Huq	Economics - University of Saskatchewan
Tanis Day	Economics - Queen's University
Lisa Barham	Psychology - University of Guelph (CARNET)
Dieter Schäfer	Federal Statistical Office (Germany)
Luisella Goldschmidt	Université Libre de Bruxelles
-Clermont	
Maria-Angeles Duran	Sociology - Consejo Superior de Investigaciones Científicas (Spain)
Hilkka Taimio	Economics - University of Joensuu, (Finland)
Grace Bediako	Technical Adviser, UN Statistical Division
Laura MacFadgen	Health & Welfare Canada, Social Policy Division
Zeynep Karman	Status of Women Canada
Barbara Fraumeni	Kennedy School of Government, Harvard University; Department of Economics, Northeastern University
Rosina Wiltshire	International Development Research Centre (IDRC)
Robin Douthitt	Department of Consumer Studies and Institute for Research on Poverty, University of Wisconsin, Madison
Fran McIninch	Health and Welfare Canada
Maria Abbott	Canadian Voice of Women
John Joisce	National Accounts and Environment Division, Statistics Canada
Hari Dimitrakopoulou-Ashton	National Action Committee on the Status of Women

The workshop began with an introductory talk by Robert Eisner. He stated that the traditional national accounts are market oriented. They estimate the total value of goods and services in the market, including some imputations such as for owner-occupied housing. However, they do not include any value for unpaid work. This leads to

major consequences through misinterpretation and misevaluation. For example, as women have moved out of the household and into the labour market, there has been a measured increase in market production, but an unmeasured decrease in household product. Such mismeasures lead to an inability to compare across time or between countries. Similar exclusions of unpaid work include the underpaying of army draftees, citizens on jury duty etc.

Further, unpaid labour is not the only mismeasure resulting from disregard of the non-market sector. The other major one is in the use of capital goods in the household. Capital goods are not purchased as final consumption goods, but for the stream of services they will generate. Without recognition of this fact, we get incorrect valuations of investment in the economy. For example, what appears to be a declining savings rate in the US may actually be a shift of savings from financial assets to consumer durables.

Dr. Eisner reminded us that all statistical measures are limited, and must be recognized within their limitations. Cross-country comparisons are not always valid. Statistics must be seen within the culture in which they originated.

The following is a summary of the topics discussed:

1. Not all unpaid work is performed for one's own family. This is particularly true in rural and developing areas. These activities should not be treated as exchange activities in a non-monetary market. Nor should they be likened to the underground economy where people do earn money for the illegal activities they carry out. Instead, the concept of volunteer work should be expanded to include all activities performed for members of the community outside of one's own family. (Apparently this is being done in various surveys of volunteer activity.) Further, there is a "stand-by," or an insurance value that can be assigned to these activities because people can count on their existence, whether or not they use them. There is a measurement issue here since time-use only captures actual time spent in the activity.
2. In time-use data, there is an imperative to collect reliable data, which does not entirely depend on the subjective interpretation of the respondent. What activity is counted as primary? What if the primary activity is non-productive, such as watching TV, while there are multiple secondary activities going on

simultaneously that are productive, such as childcare, cooking dinner and washing a load of laundry? How do these activities get measured? Recalling Meg Luxton's point, only when the researcher participates in the collection of the data are subjective interpretations avoided totally.

3. What is known about data collection, initiatives to create satellite accounts regarding household activities etc. from other countries?

USA - There is interest and a commitment by the previous administration, but as yet no funding.

Australia - Time-use data, value of household work, input-output analyses of household sector.

Germany - Leading from the Nairobi Forward-Looking Strategy, all political parties are in agreement, there is interest. Time-use data are collected, have first results of satellite accounts ready to be published, but still need data.

France - Nothing.

Canada - Work on satellite accounts for tourism, health, the environment and the household. Time-use data exist. Want to be able to include household as a sector in input/output tables.

Spain - Three one-time surveys on time-use.

Denmark - No initiative.

Norway, Sweden, Finland, The Netherlands and Austria all moving too.

There is a recognition of the need to harmonize approaches between nations, and a request for additional meetings to such an end. There is also a request that the process stay flexible. It can be expected that as satellite accounts are developed with information about the household, and as economists and others use the accounts to produce new models of economic activity, there may well be new information to be integrated into the accounts. It would be unfortunate if the accounting practices established now were set in stone, and the learning process was inhibited.

4. Fears of negative consequences resulting from measuring unpaid work exist. Some countries, notably Spain, feel worried that their relative status as a poorer country would be eroded if they were measured as having a larger unpaid work sector, and they would consequently lose out on benefits they currently enjoy. There is also a fear of having unpaid work taxed. There

is recognition that the poverty gap between rich and poor nations may widen when the household sector is included.

5. Because of the limitations of statistical information to reflect the culture, country and time in which it is collected, there is a real need to measure productivity somehow.
6. Input/output analysis needs data on the volume of output of goods and services in the household sector. There is a difficulty with measuring quality. There is also a difficulty with the wide range of prices for commodities of differing qualities.

Such information could lead to the ability to make better cross-national comparisons. For example, if one country has piped running water and another doesn't, the data would indicate the differences in labour, energy and other inputs between the countries, and might lead to an improvement in the efficiency of the technology used.

7. How should human capital investment be handled in the accounts? It is already unreasonable for formal educational pursuits to be measured as final consumption rather than investment expenditures. Should there be perpetual inventory accounting, as with physical capital, even allowing for depreciation as people age! When the value of human capital is calculated by the present value of the expected stream of earnings, the value is 10 times as large as when the value is cost based. What is a reasonable estimate for the accounts? (These points hold for other intangibles as well.)

When broadening the accounts to include the household sector, this issue expands to the whole realm of child raising by families. Child care is an activity which produces human capital. It is not appropriate to value a parent's time at the market replacement cost of a child care worker since the parent does active teaching etc. Therefore, in valuing the time used in child care, incorporate market values for teachers, counsellors, etc. into the human capital formation of time spent with children. It is necessary to use the 3rd person criteria to separate out the effects of parental love, which is not appropriately handled in any system of national accounts, from the economic contribution of the family to educating future workers.

8. There is a critical need for output measures. We need to be able to measure productivities. Measures of inputs to production functions are required to combine with time-use data to get input/output analyses. We need to be able to combine consumer expenditure data with time-use data to develop estimates of the efforts of households, and their allocation of time and other resources across preferences.

Such measurements would allow a far better understanding of economic activity. For example, at present, it appears that people are watching fewer movies since attendance at movie theatres is declining. However, if ownership of VCRs was known, and combined with a measure of home consumption of movies, then we would have a more accurate impression of what is going on in the entertainment industry.

9. The issue of investing in consumer durables is an important one. These goods are used as intermediate goods in household production of goods and services. We measure wealth acquisition as being equal to saving, and believe that the rate of saving is declining, but households are investing in far more capital goods than ever before. The stream of use that flows from those goods should be accounted for, to get an accurate representation of saving and investment in the economy.

There is a need for data on ownership, stock, inventories etc. not just purchases. Data needs to be broken down by good, not just lumped together.

The national accounts already include an imputed value for the rental in owner occupied housing. This could be extended to all goods. Otherwise, when a person shifts his/her consumption from a market to a household-produced good, the measure of GDP changes. Since the person is still using a good, this is a foolish mismeasure. This measuring of the service of capital goods should also be extended to government services.

10. There are significant unmet data needs.

- Family financial data are needed to understand intra-household expenditure patterns.
- Capital good ownership data need to include stock or inventory aspects, as well as age of the goods purchased, replacement timing, etc. It is not sufficient to take this

information from industry sources as households operate with different standards than firms.

- Household data need to be consistent with other sources of data so satellite accounts can be either aggregated or separated from market accounts. Data should be organized to dovetail with other uses.
- Household data should be collected for different types of households by family structure, age of members, presence of children, or aboriginal status whenever sample size allows it.
- It should be noted that time-use diaries provide a rich source of detailed information that is currently not being utilized. Aggregation of such detail loses valuable information.

11. It is desirable for the National Accounts to be made complementary with social indicators. This is possible to do with satellite accounts. For the household, it is possible to start with a standard IO framework, then identify types of homes, time use by categories, etc. The information can be layered so-to-speak, with increasing levels of aggregation possible, but information available at various branching points. These branching points can connect to social indicators.

Many social scientists would like to be able to use economic data that include other human characteristics for research purposes. For example, psychologists might want to study issues of human affect, or sociologists might want to study the value of family connectedness in relation to the economic trade-offs individuals make. Data should be constructed so that there are points of linkage for such purposes. An example is in the representation of the data by categories of human needs.

12. The National Accounts are a historical record of economic activity. As such, they do not in themselves show needs of individuals, nor demand functions. However, making accurate economic information available through the accounts enables researchers to develop models of household needs, and to predict future demand and supply functions for household categories. Again, this requires a dovetailing of data from surveys of population, demography, finances, time-use etc.

3. Care-giving for seniors, the ill and the disabled

Chairperson: Sylvie Jutras, Department of Psychology,
Université de Sherbrooke
Rapporteur: K. Victor Ujimoto, CARNET, University of
Guelph
Organizer: Robert Lussier, Canadian Centre for Health
Information, Statistics Canada

The following were participants in this workshop:

Anna Gabriella Papp	Ministère du bien-être social - Hongrie
Betty Havens	Manitoba Health
Jean-Pierre Lavoie	Centre hospitalier de Verdun
Joan Chesser	Catholic Women's League of Canada
Lynn Greenblatt	Health & Welfare Canada
Karen Secombe	University of Florida
Evelyn Shapiro	University of Manitoba
Misha Capler	Student
Evariste Thériault	Health and Welfare Canada
Maggie Mayfair	Marla
Bernard Paillé	Statistics Canada

The workshop participants agreed that data on care-giving should be collected on a national basis. They discussed why such data collection should take place, what should be collected and how it should be collected. The answers to these three basic questions are provided below in point form.

1. Why?

- Why is care-giving for seniors, people with illness and people with disability an important subject? Why should it be measured?
 - for economic reasons - loss of wages while providing care
 - for political reasons - because of the aging of the population, governments want to leave to the informal network the care of seniors
 - for social reasons - for social planning based on both baseline data and trend data
 - for statistical recognition for the work being done
 - for fiscal accounting purposes - to recognize the impoverishment of care-givers while they are providing assistance (e.g. not being able to contribute to the Canadian Pension Plan and therefore not being able to benefit from it later on)

2. What?

The following aspects of care-giving should be measured:

- Quantity of care-giving
 - variety and volume of care-giving
 - management of role cumulation (e.g. spouse, mother, care-giver, worker, friend, child, etc.)
 - dollar valuation of care-giving - can be measured or estimated but is of secondary importance compared to relative time value; **there is a danger to degrade care-giving because it has intangible parts which cannot be given a monetary value**
- Context of care-giving
 - care-givers
 - + demographic characteristics (gender, ethnicity, relationship to care recipient, economic resources, occupational status, etc.)
 - + social network and availability of instrumental and emotional support
 - + access to and use of community programs
 - + positive consequences on care-givers: reciprocity (e.g. learning from the experience of the recipient) warm glow effect (to feel happy, secure, to help)
 - + negative consequences on care-givers: physical and mental health impact, financial impact
 - + intrinsic and extrinsic motivation for the family assuming the care-giving role
 - care-recipients (seniors, ill and disabled)
 - + demographic characteristics (gender, ethnicity, relationship to care-giver, economic resources, occupational status, etc.)

- + financial impact
- + health impact
- social valuation

To be conscious of potential double interpretation of data - when people manage to do much care giving without specific support and resources

- + why interfere? (the laissez-faire approach)
- + how would government improve the care given and prevent collapsing of the informal network and prevent abuses (the state intervention).

3. How?

These aspects should be measured considering the following points:

- Base-line data as well as comparable measurements across time (trends e.g. the continuity of care-giving potential of the next generation considering the working involvement of women)
- Opportunities, especially Survey of Labour and Income Dynamics (SLID)
- Data can be collected via several surveys but data must be capable of being linked across various data sets
- Survey designs should take into account care-giving data requirements; secondary analysis of already available sets of data collected for other purposes are not sufficient to make policy decisions

4. The design of time-use surveys

Chairperson: Bettina Knauth, EUROSTAT
 Rapporteur: Andrew Harvey, St. Mary's University
 Organizer: Doug Norris, Statistics Canada

The following registered for this workshop:

Klas Rydenstam	Statistics - Sweden
Maury Gittleman	Bureau of Labor Statistics - USA
Susan Clark	Brock University
Susan McKellar	Health & Welfare Canada

I. Time-use methods workshop:

- A. Intro by Doug Norris.
- B. Bettina Knauth indicated her interest and mentioned the EUROSTAT project. She suggested we might look at:

1. Collection Methods:

- a) yesterday or today

2. Sample and time:

- a) population covered
- b) number of diary days

3. Diary:

- a) starting time

4. Secondary activities

II. Time interval:

- A. Ghislaine Villeneuve indicated that Canadian experience showed many activities of short durations (e.g. 5 mins.), suggesting 15 minute time intervals may be too long.
- B. Sweden used 10 minute interval diary:
 - 1. In 1985 a Swedish study by Klevmarken used an open ended diary;
 - 2. Variance greater for mean number of episodes with the open diary.

III. Experience with 4:00 a.m. start time:

- A. Rydenstam believes the 4:00 o'clock start time reduces bias;
- B. Canada's experience with 4:00 a.m. start was good.

IV. Secondary activities:

- A. Not used in Canada in 1992 as testing showed collection to be problematic and little use seemed to be made of secondary activities;

- B. Klas Rydenstam suggested we may not use secondary data but that it can be frustrating to leave behind diary for respondent who was not able to fill in multiple activities.
- C. Child care often secondary activity;
 - 1. In 1992 Canada got child care data by using a supplementary diary.
- V. Emotional support - how is it measured? Wellman argued there is a big difference between socializing and emotional support.
 - A. Collecting data "for whom" is difficult - needs testing - maybe ask question if for someone else's benefit?
 - B. You may need your spouse with you say in providing social support, if someone else cannot do it for you.
- VI. Canada doing a longitudinal study of children.
 - A. McKellar wanted to know about children's diaries:
 - 1. Bettina mentioned the Italian approach, used by psychologists;
 - 2. Provides data in gender patterning which studies show starts as young as seven;
 - B. Sweden can tell which family member individuals were with.
 - C. In Europe differences in school times could be studied.
- VII. Population:
 - A. Undersample some populations.
 - B. Canada didn't oversample - except elderly.
 - C. Sweden oversampled single women with children.
 - D. Why oversample if you just want to measure unpaid work?
 - 1. Bettina's clients want to develop policies for specific populations.
- 2. For EUROSTAT some demand to look at institutionalized elderly.
- E. Should look at Canadian data for age and refusal rate.
- F. Horlor - Seniors do not necessarily have lower response, but Canadian data showed some greater gaps in their diaries.
- VIII. Canadian used 15-20 interviewers; 2-3 per office:
 - A. The fewer the number of interviewers, the greater the chance for bias.
 - B. Canadian survey had problems on income questions which interviewers hesitated to ask.
- IX. Coding:
 - A. Problem areas:
 - 1. Travel
 - 2. Shopping obligatory/leisure
 - B. For whom approach.
 - C. Socializing:
 - 1. Problem with child care (where does playing games go)
 - 2. What is other child care? (Where do you put going to the zoo etc.) Is there an age at which you say going to game was for self?
 - D. Meals should be included as part of gross work time according to Rydenstam:
 - 1. Need to distinguish meals at work
- X. Large media survey in all of Europe used only 40 codes but got a lot of press.
- XI. A major point raised was the need to develop coding in an international forum (suggest EUROSTAT/INSTRAW cooperation).
- XII. We need to explain why time-use data is needed beyond measurement of unpaid work?
 - A. Some thoughts re uses:
 - 1. Voluntary work

2. Dimension - use of time-use to study lifelong learning, how much learning with a given activity
- B. Time-use provides best data source for unpaid work.
1. Need to:
 - a) Examine concept and use of secondary activities
 - b) Develop comparative coding scheme in an international forum
 - c) Need to look at other activity dimensions
 - d) Examine sampling of specialized populations
 - e) Examine the number and type of dimensions collected for classifying activities
 - f) Consider the use of for whom coding in relation to networking
 2. Important to measure time in and of itself not just for monetary purposes.
 3. Need to pay more attention to other than average duration and participation rates. Need to pay greater attention to context, sequencing etc. in data analysis and use.

5. Measurement of volunteer work

Chairperson: Helen Hayles, Volunteer Centre of Winnipeg
 Rapporteur: Don McRae, Multiculturalism and Citizenship Canada
 Organizer: Penny Basset, Statistics Canada

The following were participants in this workshop:

T.K. Rymes	Carleton University
David Sharpe	Canadian Centre of Philanthropy
Johanna Myles	Federation of Junior Leagues of Canada
Carol Bayne	Federation of Junior Leagues of Canada
Patty Holmes	Secretary of State
Josephine Stanic	Statistics Canada
Lucie Bernier	Université de Montréal
Janet Lautenschlager	Multiculturalism and Citizenship Canada
Penny Basset	Statistics Canada

The **Issues Statement** for this workshop was used to start the discussion and appears at the end of this summary.

What is the role of volunteer work in the context of paid employment?

Discussion started with the perception, which society holds, that volunteering is not work. The example used was, "What does Janet do? Oh, she doesn't work. She's a volunteer." This different standard for volunteer work has led to few measures of its contribution.

From the point of view of voluntary organizations, the measurement of volunteer work is important. There is a move for voluntary organizations to become better managers and knowing and understanding the contribution of your volunteers is important. Those agencies which fund groups want to know the extent of the group's community support and the voluntary contribution is a good indicator of that. Other agencies want to see that the group relies on volunteers to keep its costs in line.

A point was raised that volunteers cost money. There is a need for an infrastructure for a volunteer program. This infrastructure recruits, screens and selects volunteers, provides the resources for volunteers to do their job, provides training to volunteers etc.

Participants discussed the training of volunteers and that, in some instances, this training is recognized by the marketplace. There are several organized forms of training (through volunteer centres and the United Way's Volunteer Leadership Development Program) that can act as measures of volunteer work. In some instances, these skills are recognized on résumés and used when job hunting. In the context of paid employment, there are skills gained and practices learned which will serve volunteers well in the work force.

How can volunteer work be valued?

There are some practical and philosophical considerations around the measurement of volunteer work. In practical terms, participants outlined where the measurement of volunteer work helped legislators understand the contribution of the voluntary sector.

The Coalition of National Voluntary Organizations presented a brief before the Parliamentary Committee studying the Goods and Services Tax. They used concrete measurements

which included the number of hours worked, the number of Full Time Equivalents and a proxy wage value for this time. These measures were a quick and effective way to educate legislators about the voluntary sector. The presentation favourably affected the treatment of charities under this Tax. Participants stated that concrete measurement would also assist the voluntary sector in similar issues such as the tax treatment of donations and issues around charitable business.

There was some discussion on the tendency of society to devalue the contribution of volunteer work. Traditional volunteer roles were filled by women and, hence, the value of this work was not seen as important as other forms of work. This was seen as reflective of women's former role and participation in the labour market.

The philosophical discussion on the measurement of volunteer work centred on whether using a monetary figure, which is at best a limited measure, is in line with the altruism associated with the volunteer impulse. If you use a monetary measure, do you in fact, devalue volunteering? How can the voluntary sector defend its interests without distorting the philosophical underpinnings of the personal choice to volunteer?

Participants were quick to point out the distinction between the recognition of individual volunteers and their motives for volunteering, and the general public recognition of volunteer work that the voluntary sector wants, in order to be part of the overall policy framework of government.

Discussions on altruism suggested that this may be a cultural value that reflects a formerly homogeneous society. The changing demographics of Canadian society should be taken into account. Women have used volunteer work as a point of entry into the paid market to hone old work skills and gain new ones. Newcomers to Canada work in voluntary groups to assist with their integration (i.e. gain language skills). While the motives of these groups is different from altruistic volunteering, the work given by these people doesn't differ substantially from other volunteers.

Participants agreed that it's in the interest of the volunteer sector to be recognized as a sector and some form of measurement would assist that. If the third sector is well recognized then it will have an impact on legislation and policy.

How can information on volunteer work be collected in order to have an accurate picture of the amount of time devoted to this activity?

Statistics Canada

There was much discussion on this point and on the nature of the data collected to date. The National Survey on Volunteer Activity was seen as the best data collection to date. This was so in part because of the pre-survey work with the voluntary sector which ensured that the data was meaningful. The second reason was the scope and depth of the data collected.

Statistics Canada was seen as one of the logical collectors of data. This data collection could be a repeat of the Household Survey, the 1996 Census, use of General Social Survey data, or time-use surveys. These measure volunteer work by asking Canadians what they have done.

Discussions focused on the usefulness and comparability of the results of data from the Household Survey and the Census. The Household Survey prepared respondents by discussing volunteer work and activity. Respondents were prompted to consider these questions very closely and over the previous year. The rate of response was considered to be very accurate.

The Census will not have the same ability to discuss volunteer work and the time period may be shorter (i.e. the past month) so the results will most likely show lower percentage rates of volunteer work. However, the Census will, by its very nature, give excellent demographic data.

Participants thought that the Household Survey should be repeated and asked the question, "Who needs to be persuaded, in government and elsewhere, in carrying out another Household Survey?"

Voluntary organizations

Another way to measure volunteer work would be for voluntary organizations to measure the number of their volunteers and the number of hours worked. This measure would assist these groups in presenting their case to local funding agencies and would help Canadians increase their understanding of the voluntary sector.

Discussion then focused on the comparability of volunteer work. Does the volunteer work of a bank manager compare with that of field labourer? People agreed that it depended on the nature of the volunteer work and the skills brought by the volunteer. The major issue, however, is the collection of data and then refining the collection instruments.

This may entail creating a hybrid of the model used by David Ross in his study Economic Dimensions of Volunteer Work in Canada. In this study, Ross used the average provincial social service sector wage to represent the wage proxy of volunteer work. Work may have to be done to the Ross model to make it easy for volunteer groups to use.

Discussions also raised the possible use of skills transferred when doing volunteer work. The skill experiences of volunteer work was seen as a possible method of measurement in the Ross study but was found to be incomplete at that time.

The last question raised in this part of the discussion was, "Who needs to be persuaded, in government and elsewhere, to push for the collection of data?"

What does volunteer work include?

The Issues Statement included four possible forms of volunteer work:

- formal work through a voluntary organization;
- informal work not through an organization and outside the family;
- informal work not through an organization for family members; and
- volunteer work connected with self-help.

These alternatives engendered some discussion but it was quickly decided to use the first two forms and most likely the fourth form. These appeared to be best in line with the definition of a volunteer, since the third form implied some service to the volunteer as family members were included. It's the end result that is important: that someone else benefits.

Focus groups have had problems defining what charities are and the differences between the legal definition and the public perception. The same difference can be found in our definition of volunteerism. There is a public perception and a legal or professional understanding.

What is the perception of volunteer work by society?

Participants said there was general acceptance and appreciation of volunteer work but that this is not firmly rooted in the minds of Canadians. The sector is trying to change the image of the sector and data collection is important toward this end. One participant remarked that this means getting volunteer recognition from the society page to the business page.

Final comments

There was a parting of the ways (minority report) on the philosophical basis of using the market value measure to measure volunteer work but the majority agreed that such a measure was necessary.

There is a need to develop and gather data on the voluntary sector that is useful. The Household Survey on Volunteer Activity was useful and a second survey, using the first as a baseline, would be of invaluable assistance to the sector and for public understanding of the sector.

Issue statement

Using the definition from the American Red Cross study, Volunteer 2000, a volunteer is a person who undertakes actions that are:

- uncoerced
- unremunerated and
- undertaken for a non-profit cause or as a service to others

In 1987, the National Survey on Volunteer Activity estimated that the time contributed by Canadian volunteers to various organizations was the equivalent of 617,000 full-time jobs. Volunteer work is a very important aspect of unpaid work that involves all demographic groups and takes on many forms. The following questions are set out to help participants focus on some of the major themes of volunteer work and its measurement.

- A. What is the role of volunteer work in the context of paid employment (i.e. Are skills and practices that will assist people in finding paid employment learned during volunteer work?)
- B. Does volunteer work include the following?
 - formal volunteer work through an organization
 - informal volunteer work not through an organization and outside the family
 - informal volunteer work not through an organization for family members and
 - volunteer work connected with self-help
- C. How can information on volunteer work best be collected in order to have an accurate picture of the amount of time devoted to this activity?

Should there be some form of standardized measure by organizations?

- D. What is the perception of volunteer work by society?
- E. How can volunteer work be valued? (e.g. using a proxy measure for a wage equivalent value).
- F. What are the links between volunteer work and the market economy?
- G. How does society value the contribution of volunteer work?

6. Measurement of household management

Chairperson: Margo Anderson, University of Wisconsin
 Rapporteur: Meg Luxton, York University
 Organizer: Patricia Grainger, Statistics Canada

The following were participants in this workshop:

Carole Lees	National Alliance of Homemakers
Phoebe Jones-Schellenberg	Wages for Housework Campaign
Ian Macredie	Statistics Canada
Sarah Belanger	Canadian Advisory Council on the Status of Women
Anne-Marie Julien	Bureau de la main-d'oeuvre féminine
Connie Boynton	National Defence
Sophie Joannou	Real Women of Canada
Rollande Savoie	Réseau national d'action éducation femmes
Katherine Marshall	Statistics Canada
Frances Woolley	Carleton University
Judith Frederick	Statistics Canada
Barry Wellman	University of Toronto
Pat Grainger	Statistics Canada
Margo Anderson	University of Wisconsin-Milwaukee
Meg Luxton	York University - Atkinson College

This discussion focused on several related issues. The first was how to define "household management" in a way which is both general enough to capture most of what actually goes on and comprehensible enough to most people so that there is some adequate comparability in responses. In particular, the mental activities (such as planning and remembering) involved in making and maintaining social relations are the most invisible. We suggest that upper management activities in business, government and other organizations offer appropriate models. One way of measuring this is to develop a list of activities and ask people to check off the ones they do and the ones others in their household do, or others in their network do for them. If this were done, respondents would provide more items and over time the list would be refined. It was stressed that the activities have to be defined, not the person doing them, especially if data collection

is to measure divisions of labour, part time/full time comparisons, and changes in job content over time. We wondered whether job evaluation models (as used in pay equity) would help in assessing the content of household management. Because so much of this work is invisible and hidden, many in the workshop expressed concern that women would have difficulty identifying the work they actually do, so Statistics Canada is urged to do careful educational work, both to raise general awareness of this issue and to ensure people can answer the questions appropriately.

Some felt strongly the need for an occupational title and we discussed various terms such as keeping house, housewife, homemaker, household engineer, home manager. We agreed that all these terms are saturated with meanings derived from paid employment and felt this is limiting and problematic. While paid employment models and equivalents may be very useful, especially in determining monetary value equivalents, people were concerned that domestic labour might be inappropriately fitted into paid work categories. We thought this deserved investigation. In particular we wondered if child care, which involves both care-giving labour (from changing diapers to monitoring curfews) and interpersonal relations, could be measured by paid employment derived models.

We agreed very strongly that measurement techniques must be developed which can account for simultaneous activities which may be equally important such as washing the dishes and caring for children or ironing while planning the week's menu or the upcoming holiday. This is particularly important in distinguishing leisure and child care where women may say they are watching TV or cooking or sleeping while they are simultaneously fully responsible for the child. Perhaps other paid care-giving jobs might offer models (e.g. nursing in emergency care)?

We considered the question of pleasure and enjoyment and agreed that while they are particularly important in how people distinguish between "work" and "love," in relations with dependent people, they are not useful criteria. Someone suggested that one measure of women's work in the home could be the number of people dependent on her (including husband).

It was noted that much of the work women do should ideally be non existent. This includes dealing with the impact of pollution or racism on her household, especially children. We also expressed concern about using the household as the unit of measure. This privileges certain kinds of relationships and fails to capture what are often

very important relationships between households. We also noted the way kinship and marriage-ties, where heterosexual couples are typically assumed to be the most significant. We urge Statistics Canada to ensure that these relations be investigated rather than assumed.

We discussed the problem of the halo effect or the tendency of people to give socially appropriate answers and concluded that only changes in social attitudes will help there. However, the decision to include domestic labour in official counting is one important step in that direction.

We noted that if market equivalents or substitute workers are used as measures of the value of household management, then women who are full-time homemakers will have a vested interest in supporting wage increases for employed women and vice versa. This would be a helpful counter to the existing division and tensions between such groups of women.

We agreed it is very important to capture the fact that many homemakers may also want paid employment i.e. they should be counted as unemployed. Similarly employed women are also full - or part-time homemakers. The existing terms and concepts which reflect the paid labour force (e.g. employed, unemployed, discouraged) may not accurately capture women's reality. We suggest that "Homemaker" be included in the Labour Force Survey.

Finally, based on our detailed discussion of the difficulties involved in trying to assess household activities with survey questions, we argue strongly for more qualitative research and more combinations of qualitative and quantitative methods.

Recommendations:

1. Statistics Canada needs to do educational work, especially with women, to help them learn to recognize and therefore respond to questions on the work they do. At the least, this should be a pamphlet accompanying the questionnaire. Other avenues include inviting *Chatelaine* or *Homemakers* magazine to run an article on the issue accompanied by a model set of questions, inviting readers to fill it out and comment. Some participants suggested that women's organizations might be willing to do educational work in their communities.
2. Where market wage or substitute employment are used to develop a money value for unpaid work, the most skilled (as currently recognized)

employees should be used (e.g. psychiatrists, CEOs) to avoid replicating the wage/salary inequalities in paid work, and to ensure domestic labour receives the respect and validation it deserves.

3. Homemaker as an occupation (both full and part time) should be included in the Labour Force Survey.
4. Statistics Canada should carry out more qualitative research, both to help refine definitions and questions before developing survey questions and also to follow up and complement survey research. Statistics Canada should actively call for and lobby for increased funding support (from agencies such as SSHRC) for qualitative research.
5. Do a study specifically investigating the consequences of using concepts and terms developed to measure market activities for non-market relations and activities.

7. The use of statistics on unpaid work in civil litigation

Chairperson: Jamie Cassels, University of Victoria
 Rapporteur: Ralph Shapiro, Scarborough General Hospital, Accident Inquiry Management Clinic
 Organizer: Wendy Bryans, Department of Justice

The following registered for this workshop:

Rosemary Avery	Cornell University - USA
Keith Bryant	Cornell University - USA
Ruth Berry	University of Manitoba
Tina Head	Canadian Advisory Council on the Status of Women
Monica Townson	Fair Tax Commission - Ontario
Richard Kerr	Department of Justice - Canada
Joan Forbes	Statistics Canada
Carolina Giliberti	Department of Justice - Canada
Kathryn Stafford	Ohio State University
Michael Thoen	Statistics Canada
Deborah Carter	Associated Economic Consultants

Jamie Cassels, a law professor at the University of Victoria, introduced the session by describing the application of time-use data on the valuation of unpaid labour in personal injury and family law cases. He also mentioned potential applications to business law and tax law. While cutting edge, such evidence has been accepted at the court of appeal level in Canada and has resulted in large monetary awards.

Cassels then pointed out a number of problems with the data including its cost and complexity. Another major problem was the relatively low wages assigned to the categories of unpaid work.

However, there was a consensus in the group that low valuations were preferable to no valuations.

Ralph Shapiro, rehabilitation consultant, presented "Quantifying the Value of Unwaged Work in Civil Litigation Actions".

He presented an overview of the theoretical approaches, namely replacement and opportunity cost, followed by review of a wrongful death action case he recently completed. Through the presentation of this case, he described the process of integrating Time-use data with the catalogue approach in order to arrive at a value for unwaged work.

The time-use data, General Social Survey, 1986, served as the statistical bedrock from which projections of future time-use could be calculated with greater confidence. This was followed by discussion on the problems and limitations of each of these approaches and additional needs and directions.

Richard Kerr, economist, presented the "Potential Use of Time Use Data in The Determination of Spousal Support".

The Divorce Act states that spousal support orders should recognize the economic advantages or disadvantages arising from marriage. The Supreme Court of Canada, in a recent judgement stated that divorcing spouses should tell the judge in general terms what their roles had been during the marriage and that this would enable the judge very quickly to get an accurate picture of the relevant sacrifices, contributions and advantages. The presentation suggested that it may be possible that time-use data could be employed to derive retroactive estimates of specific couples' time-use within the marriage. Theory and empirical research in labour economics suggest that factors associated with specialization within a marriage are likely to lead to earnings level gains for the spouse who specializes in paid work and losses of earning capacity for the spouse who specializes in unpaid work.

The presentation speculated that it may be possible to use time-use simulations together with the findings from applied labour economics to estimate some of the gains and losses to each party within the marriage. Some implications of simulated time-use within the traditional and non-traditional marriages were discussed with the aid of a simple graphical approach. Discussion focused on the data requirements and relevant empirical research findings applicable to this approach.

Overall observation

Four members of the group had experience with preparing valuation reports in court cases in Canada and all used the General Social Survey of 1986. They felt that this data was necessary to give them credibility before the court. They would welcome an opportunity to comment on the questionnaires and the type of analysis to be performed on the data.

There was a real desire to continue communication with the other members of the group in order to work towards common standards and approaches to the valuation of unpaid work. Cassels also noted that some lawyerly input into the data would be helpful.

8. The valuation of unpaid work

Chairperson: Marie-Thérèse Chicha, Université de Montréal
Rapporteur: Luisella Goldschmidt-Clermont, Université Libre de Bruxelles
Organizer: Chris Jackson, Statistics Canada

The following registered for this workshop:

Hilkka Taimio	University of Joensuu - Finland
Kathryn Stafford	Ohio State University
Joan Forbes	Statistics Canada
Carole Lees	National Alliance of Homemakers
Ruth Brown	National Council of Women of Canada
Suzanne Garon	Université de Sherbrooke
Selma James	Wages for Housework Campaign
Rosina Wiltshire	International Development Research Centre - IDRC
Maury Gittleman	Bureau of Labour Statistics - USA
Maria Duran	Centro de Ciencias Sociales - Spain
Martha MacDonald	St. Mary's University
Maria Abbott	Voice of Women
Jacqueline Nadeau-Martin	Association féminine d'éducation et d'action sociale - AFEAS
Sylvie Jutras	Université de Sherbrooke
Don McRae	Voluntary Action Directorate
Ralph Shapiro	Scarborough General Hospital
Robert Eisner	Northwestern University
Margo Anderson	University of Wisconsin
Jamie Cassels	University of Victoria
Helen Hayles	Volunteer Centre - Manitoba
Hari Dimitrakopoulou	National Action Committee on the Status of Women - Manitoba
-Ashton	Federation of Junior Leagues of Canada
Carol Bayne	

The workshop was attended by a mix of academics, statisticians, and representatives of women's groups. Participants' interests were varied and included raising the visibility of housework and other unpaid work (eg. volunteer work) through economic valuation, equality issues and the status of women, promoting legislation, balancing (paid) work and family responsibilities, the historical development of statistics and the perceived economic role of women, research in home economics and extensions to national accounts in the area of unpaid work.

The various methods that have been used to value household work were reviewed. As well, valuation methods applicable to volunteer work in institutions were discussed. Some participants expressed a preference for output-based evaluations, but most of the discussion focused upon input-based evaluations. In the context of this discussion, a number of related issues were raised. These included the treatment of simultaneous activities, different concepts of "value" (eg. market price, subjective and social values), the limitations and constraints of economic accounting which could be supplemented by other approaches and the "transmission of wage discrimination" through the use of market earnings data to value unpaid work.

Some participants questioned the use of any market earnings data in the valuation of unpaid work and the use of the third person criterion to separate "work" activities from all other activities. The treatment of travel and other borderline activities were discussed. In the context of the discussion on borderline activities, it was questioned whether or not time-use surveys could capture the complexity of unpaid work (e.g. quality, intensity, stress) or adequately capture time spent in activities such as household management and emotional support.

The workshop ended with a discussion on actions and directions to take in the future. It was felt that the conference and the workshop were useful and that discussions amongst women's groups, statisticians and academics on statistics related to unpaid work should continue in the future. Developmental work on accounts for unpaid work was encouraged, although some resentment was expressed regarding terminology. One participant suggested that the term "satellite account" conveys secondary status to unpaid work and that the term "national account" suggested much broader coverage than is the case. Lastly, further research to develop methods which could perhaps avoid some of the problems raised was encouraged. For example, job evaluation techniques could be used to take into account some of the aspects of work that are not captured with time-use surveys such as mental and physical effort, working conditions, responsibility and qualifications.

9. Alternate measures of unpaid activities – what and how

Chairperson: Andrew Harvey, St. Mary's University
 Rapporteur:
 Organizer: Doug Norris, Statistics Canada

The following registered for this workshop:

Vandeli Guerra	Brasilian Institute of Geography & Statistics
Barbara Fraumeni	Harvard University
Judith Alexander	Copyright Board of Canada
Phoebe Jones-Schellenberg	Wages for Housework Campaign - Montreal
Deborah Carter	Associated Economic Consultants

I. Jorgenson and Fraumeni

A. Looking at investment approach – measure value of education as an increase in lifetime earnings.

1. Data:

- a) Use data available on longevity earnings etc.
- b) Working with a sample of 20,000 mothers
- c) Just women because using 1972-73 data and men not doing much child care then

2. Issues:

- a) Woman who takes time to raise kids - this becomes a cost (it has an effect on her lifetime earnings)
- b) Want to know women's work experience
- c) Need to know the affect of having children on the mother's work history
- d) Trying to say the household sector produces a lot more than a cost approach would tell you
- e) Dealing with both sides inputs and outputs

B. Volunteer survey:

- 1. Hard to find them – listed various possible activities
 - a) Covered organized activities
 - b) Informal activities
- 2. Excluded help to family members – what was done and for whom
- 3. No attempts to put value

4. David Ross calculated the monetary value
 5. Used activity list
 - a) Reference week
 - b) Past year
 6. Comparisons of stylized data and time use
 7. Regular activity is easy to get but irregular work is hard to get
- II. Herzog – problem is collapsing activity, i.e. "home maintenance"
- A. Need to think of the cognitive processes to explore what is the best way to get the data.
- III. Statistics Canada methodological tests:
- A. Comparison of diary and stylized questions showed child care much less on diary / housework was not as different:
 1. Differences vary greatly by group and size.
 - B. Statistics Canada examined proxy reporting; they looked at three activity groups – husbands and wives reporting what they and their partners each did.
- IV. Problems in collecting unpaid work on the census.
- A. How many hours in previous week on:
 1. Housework
 2. Child care
 3. Volunteer work
 - B. Problems of overlapping activities.
 - C. Child care considered by some 24 hours per day.
- V. Herzog – if you have somebody to care for, you are putting in 24 hours.
- VI. Need to look at quality of time:
- A. Sue Shaw's approach.
- VII. Secondary activities of interest to Status of Women.
- VIII. Household management is an issue:
- A. Much is going on while you are doing other things
 - B. You cannot capture management etc. on a minute by minute basis
- IX. Time studies help to provide detail.
- X. Problem with differential response and detail.
- A. How do you capture activities which people tend to under-report
 1. Men often are much less verbose than women.
 - B. Gender biases in response.
- XI. Maybe we need to go back to questions on frequency, e.g. often/frequently/never.
- XII. Should we look at the life cycle of women.
- XIII. Caring activities – we need accurate measures.
- A. Also need to look at unpaid work which is not related to caring:
 1. In cultural activities do you include singing / practice / travel.
- XIV. Brazil gets hours on paid work / family enterprise / home construction:
- A. Housekeeping not measured
 - B. Volunteering very low – not significant
 - C. Do people in the informal sector want a job in the formal sector; many do not want it.
- XV. Unpaid work often not measured in developing countries:
- A. Work at home for own consumption
 - B. Work for sale – person is employed

C. Issue is whether one is in the labour force or not

1. Problems of concepts and measurements:

a) Time use is good to overcome concepts

XVI. Volunteering might be done for many reasons.

XVII. Statistics Canada considering using stylized questions on unpaid activity benchmarked to time-use survey.

XVIII. Summary of Needs:

A. To look beyond the immediate costs and returns

B. To match data purpose and collection method

C. Need to explore cognitive dimensions

D. Need to watch for cultural differences

E. To capture household management - not well done by current measures

10. The design of input-output accounts for non-market activity

Chairperson: Duncan Ironmonger, University of Melbourne

Rapporteur: Dieter Schäfer, Statistisches Bundesamt (Germany)

Organizer: Michael Thoen, Statistics Canada

The following were participants in this workshop:

R. Avery	Cornell University
T.K. Rymes	Carleton University
B. Havens	Manitoba Health
T. Day	Queens University
A. Chadeau	OECD
F. Jones	Statistics Canada
M.A. Duran	Consejo de Investigaciones Cientificas Spain
K. Rydenstam	Statistics Sweden
J. Joisce	Statistics Canada

Traditionally, empirical studies on the valuation of unpaid activities were often restricted to valuing the hours worked on a wage basis. The input-output approach to household production is considered in the same comprehensive way as production is in the national accounts. In addition to labour inputs, the services of consumer durables in the household production process, depreciation, indirect taxes and intermediate consumption are taken into account.

Therefore the input-output approach seems to provide an analytically promising framework for the future. The input-output tables represent the core of a satellite system which can be supplemented by additional information on other aspects of household production.

Following these general lines the main issues to be discussed in the workshop, proposed by the Chairman to the participants at the beginning, were:

- definition of non-market activities
- examples of input-output tables for non-market activities
- design features and data requirements, and interface with national and input-output accounts of the market economy.

As regards the definition of unpaid work, the input-output approach is relatively open. Up to now some work has been carried out on unpaid work for their own household. Several participants stressed the growing need for integrating care for the elderly, volunteer work and help provided to other households. The inclusion of these activities could be regarded as consistent with the widely accepted third-person criterion for the delimitation of household production. In the input-output tables on household production for Australia even self-education is included. Therefore a discussion ensued on the question as to whether the third-person criterion needs to be accepted in every case.

Duncan Ironmonger subsequently presented his work on the first input-output tables he had established for Australia by combining the information of a time-use survey and the household expenditure survey. In his pioneer work he calculated time inputs in terms of volumes and value, intermediate consumption and purchases of durables for 13 household industries. He stressed the possibility of including leisure activities in the approach and the advantages of calculating input-output tables for different household groups (e.g. households with or without children), which enlarges considerably the potential use of this approach (e.g. by trying to calculate equivalent scales including the value of unpaid work).

The work presented by Michael Thoen of Statistics Canada follows the same general lines, but takes time-use and national accounts data as a starting point. His calculations were done on an impressingly detailed level. About 600 commodities were reviewed and allocated to activities. Furthermore, calculations on the services of

consumer durables were integrated in the input-output tables. From a methodological point of view the Canadian input-output tables for non-market activities are therefore perfectly consistent with the input-output tables for the Canadian market economy in national accounts. In the allocation process goods like electricity that are used in several household production activities were allocated mainly with the information on the time spent for the activities concerned. In most cases time seems to be the best approximation for the allocation process. General overhead costs of the household were identified separately, but subsequently allocated to activities.

In the discussion of these approaches several questions of general interest were raised. Child care e.g. seems to have a relatively low output in these calculations because in the case of simultaneous activities only primary activities are taken into account, whereas a great part of child care is done as a secondary activity. The problem of valuing unpaid work in the context of input-output tables seems to need further discussion, too. Some participants asked if it is reasonable to use a gross wage in the replacement cost approach but a net wage for the opportunity cost method. As a consequence of this choice the differences between both methods are surprisingly small. Further discussion pointed to the problem that for substitution analysis the gross wage seems to be the best concept. On the other hand there are strong arguments for not including social security contributions and wage payments for holidays and illness in the wages used for valuation, because there exists no corresponding claim for persons performing household production activities. The question of whether or not to include taxes is not as clear. The time of the day at which an activity is performed is normally not taken into account in the valuation process. Some wage elements for night work might however be implicitly included by calculating hourly wages on the basis of annual or monthly income.

Given the discussion in the other workshops some participants stressed the necessity of developing a definition of the output of household production activities. Defining the output is not only crucial for the integration of input- and output-based valuations but also for the allocation of products to activities.

Up to now the calculations of input-output tables on household production have not included interrelations between different household production activities or industries. Initial work on the inclusion of these interrelations is carried out in Australia. Could e.g. shopping activity be regarded as a further input into the meal production process

in order to construct complete industry by industry tables of household production.

As the important data bases for the establishing of input-output tables on household production time-use surveys, surveys on facilities and capital goods, output surveys and wage data were identified beside the national accounts. For some countries a major problem is the fact that there are no valid data available on the number of households and their composition between the censuses. Therefore these figures have to be estimated by using plausible assumptions and models.

The most important problems concerning the link with the traditional input-output tables of the market economy are the statistical treatment of the population in institutions – a problem that is getting more and more important with regard to the elderly – and the separation of transactions of unincorporated enterprises and of the other people working at home from the household production activities. This seems to be possible only by relatively rough estimations or by using tax data, accepting the inconveniences of this data source in regard to the problem given. Other participants reported on problems of eliminating purchases of tourists from the data available on private consumption and pointed to the need for consistent information on purchases and the corresponding price developments.

The lively discussion on the different topics during the workshop underlined that the time was ripe for an intense exchange of views on the relatively ambitious project of constructing input-output tables on household production. There seems to be widespread agreement on the general lines of the work. Nevertheless, as is the case in all new areas of research a lot of specific issues need further discussion in the future.

11. Statistical measurement issues in the field of child care

Chairperson: Robin Douthitt, University of Wisconsin
Rapporteur: Donna Lero, University of Guelph
Organizer: Judith Frederick, Statistics Canada

The following registered for this workshop:

Sarah Belanger	Canadian Advisory Council on the Status of Women
Keith Bryant	Cornell University - USA
Carolina Giliberti	Department of Justice Canada
Anna Gabriella Papp	Ministère du bien-être social - Hongrie
Marla Waltman-Daschko	Mothers are Women (MAW)
Sophie Joannou	Real Women of Canada
Jens Bonke	University of Copenhagen
Joan Chesser	Catholic Women's League of Canada
Susan McKellar	Health & Welfare Canada

The purpose of this workshop was to identify some of the specific issues involved in estimating the value of time spent in unpaid child care as an aid to further research that may be undertaken by Statistics Canada and other organizations. It was recognized that failure to include the value of reproductive work in National Accounts perpetuates its invisibility as both an economic and social activity with particular consequences for women. A secondary result of the lack of data on paid and unpaid child care is the continuing failure to adequately address the ways in which policies, programs and services could explicitly support parents and caregiving, whether parents work at home or in the paid labour force, or both.

This brief summary highlights some of the complex conceptual and methodological issues that should be considered in further research on this topic. It does not address every issue that should be resolved, nor does it include a suggested remedy or solution to each problem. It should, however, provoke further discussion and consideration in this important area.

Part 1 of this summary raises some general conceptual issues. Part 2 focuses on some specific concerns and suggestions for collecting information about child care work for research purposes.

Part 1: Conceptual issues in studying unpaid child care work

1. Hidden assumptions: Parenting and child care work

A. *Parenting is more than child care*

It is important to state at the outset that the major commitments required by parents in raising the next generation go beyond the more concrete and tangible aspects that may be captured in the first efforts to estimate the value of unpaid child care in the home. In addition to time spent directly with children, parents invest time and energy in planning their children's activities, discussing problems and concerns about child-rearing, and soliciting advice and obtaining information to help them make decisions about how to support their children's development. While others (relatives, neighbours, paid caregivers, teachers) may share some child care tasks with parents, the burden of making decisions and having responsibility for their children's health and well-being is another unpaid and less easily measured component involved in parenting. If "child care" as a term is used as a synonym for parenting, this subtle, but very important component may be overlooked.

As a footnote, the most common context in which the words "child care" are being used at present is one that assumes care is being provided by someone other than parents, as a supplement or substitute while parents work at a job or business or are enrolled as students. Child care arrangements, used in that context, may be paid or unpaid, licensed or unlicensed. While there are advantages to using the words "child care" to refer to any situation and any activities in which children are being cared for, whether by parents or others, there is also the possibility for misunderstanding.

B. *Productive and personal components of child care work*

Efforts to estimate the economic value of unpaid child care work through time diaries appear to focus on time spent with children and the specific tasks performed by caregivers. Using the "third person criterion" as discussed by Luisella Goldschmidt-Clermont, the "productive" components of unpaid child care work would be those that could be performed by others. Components that are personal activities (which may include such activities as singing with a child while doing the dishes, expressing affection, or planning to surprise a parent on his/her birthday) presumably would not be counted. Yet segmenting specific interactions with children in such arbitrary ways would be impractical. More importantly, such action would violate our understanding of the fact that children's development emerges through social interactions which include an affective context. Reproductive work includes not only the specifics of physical caregiving (feeding, bathing, supervising, etc.), but also the investment of time and energy in interacting with children to nurture their talents, their self-esteem, and their capacity to care for others as a result of stable and secure emotional attachments.

2. Valuing child care – Valuating child care

One of the benefits of including a wide variety of participants in this conference was that it enabled some women to make the point that valuing unpaid work as an important role function is not just an economic or research task. The specifics of how one arrives at estimates for National Accounts appeared less important in some ways than the reality of the fact that people were starting to recognize and appreciate the real contributions made by women who assume major responsibility for child care and other unpaid family work. On the other hand, it appeared that at times, an effort was being made to force a round peg into a square hole. The complexity, degree of self-sacrifice, and amount of personal energy put into child care do

not seem to be considered as yet. In particular, it does appear that the quality or uniqueness of specific caregivers (parents or relatives, in particular) to specific children is included in current research. Failure to consider this feature leads one to the suggestion that caregivers are interchangeable units of comparable worth. While that assumption may work in economic models, it violates the integrity of women's feelings about child care and their role as unique caregivers.

3. Economic productivity and efficiency – Relevant or irrelevant criteria for child care?

Discussions on the first day of the conference highlighted one of the major difficulties in evaluating the "output" or effective value of child care activities. The specific issue was the time a parent or caregiver might spend in diapering a baby, although another example that illustrates the same point is the time spent in getting a child dressed in a snowsuit. If one adopts a traditional economic model, the less time spent in either task, the more efficient the caregiver. A parent who takes longer to diaper a child, perhaps because she or he takes the occasion to tickle the child or play peek-a-boo, would be considered less efficient. Similarly, allowing a young child to attempt to get into a snowsuit with less direct assistance takes longer, but is instrumental in helping a child learn how to do it and feel some sense of independence and efficacy. The effective yield, in either case, extends beyond the simple task of diapering or getting a child dressed. The quality of care provided is more essential for children's development – but that concept is less easily measured or appreciated from an economic perspective.

4. What methods should be used for valuation purposes?

Workshop participants spent some time discussing the alternatives of using replacement costs, opportunity costs, or a method that uses individual functions or some estimate related to it, such as a job-evaluation scheme as described by Tanis Day. The last method was preferred. Among other comments, participants observed that wages provided to caregivers are abysmally low. Another point raised was that any scheme that assessed the economic value of current unpaid work should consider the lost wages and pension contributions accruing when women elect to stay at home to be full-time care providers.

Part 2: Measurement issues

1. What should be measured?

Workshop participants identified three kinds of situations that may be captured as time spent in unpaid child care:

- A. Time spent directly with a child or children - whether child care is the primary focus of activity or not. Transportation time with children should be included, as would time spent taking a child to a doctor's office, shopping for clothing with a child, etc. If time in specific activities is desired...e.g. time spent reading to or with a child, then specific questions might be asked to obtain that information.
- B. Time when a caregiver/parent is responsible for a child's care or supervision, but not directly interacting with the child. Such instances may include time when a caregiver is preparing dinner while a child is doing homework in his/her room or is playing in the backyard. In such circumstances, the caregiver/parent is available for interactions and is monitoring the child's activities.
- C. Time spent on behalf of a child or children: These child-related activities would include such situations as:
 - arranging for child care, coordinating children's activities
 - meeting with a child's teacher

Unresolved question:

Would you include time when children are sleeping? Parents are "on-call" at such times, although not directly involved in child care. Still, a child may wake up and need assistance or comfort; parents may "check" on a child several times. If parents are unavailable at night, another caregiver is often used. If young children are in another's care all day, the time a child is napping is considered part of the child care day and is paid for.

2. The number and ages of children should be captured

The 1992 GSS does not appear to differentiate between times when only one child is present and times when a parent or caregiver may have several children to care for. Presumably, time spent interacting with more than one child, or very young children, is "more expensive time" in

that it likely requires more direct involvement on the part of the caregiver. Similarly, if a child is ill or has a health problem or disability, care may be more intensive or more specialized.

Unresolved question:

What should the upper age limit be for a child? Under 15? 18? 12? This is important if research studies conducted at different times or in different countries are to be used for comparison purposes.

3. Simultaneous activities

It has been noted that one of the difficulties in measuring time spent in unpaid child care is that it is often done simultaneously with something else. We recognized that the 1992 GSS attempted to ascertain if a child or children was present.

A particular case that should be noted is when a parent is interacting with or supervising other children, in addition to their own child. Examples would include situations when a child's friend is visiting, a parent is coaching a little league game, and indeed, the interesting circumstance occurring when a parent is a paid caregiver for someone else's child and their own children are also present (i.e. the parent's paid work is being a child care provider to others' children while looking after her own child too).

4. When care is provided by or shared with a spouse/partner

It was noted that current methods, such as the GSS, focus primarily on one respondent per household and fail to consider that caregiving may be a shared activity. Indeed, the extent to which a spouse or partner (or other family member) is actively involved in providing child care is likely a significant determinant of how much care is provided by the respondent. Workshop participants were interested in times when both parents (in a two-parent family) were involved in care, as well as the extent to which a spouse/partner provided care separately, freeing up the respondent's time and energy.

Given the increasing incidence of marriage breakdown, participants suggested asking a question to determine if any of the children in the household spent time with a non-custodial parent.

5. Additional information that would be helpful:

Workshop participants indicated considerable interest in the fact that demographic and contextual factors help explain the "press" for

time spent in unpaid child care. In addition to marital status, participants were interested in:

- the number, age, and gender of each child in the family,
- household composition,
- whether any of the children have a long-term condition or health problem,
- custody arrangements, if applicable; blended families?
- the spouse/partner's work schedule.

6. Other measurement issues:

It was recommended that, in addition to a time diary, parents or caregivers be asked such questions as "In a typical week, how much time, if any, do you spend ... reading to or with your child(ren)? (and other specific activities that might be considered important investments that would affect a child's school achievement). If there is a desire to study the potential effects or outcomes associated with certain care behaviours (e.g. reading or discussing events with a child), then that would have to be planned to enable it to happen. Similarly, one might ask how much time child(ren) spend alone. Measures of child outcomes that may be associated with greater or lesser amounts of unpaid care or specific activities may be assessed, as well as parental (caregiver) outcomes, e.g. time crunch, guilt.

Final comments

The participants commend Statistics Canada and the Minister Responsible for the Status of Women for hosting this conference and moving forward with efforts to quantify the value of unpaid work. The task is a challenging one, but most important, especially for women. Valuing unpaid child care work by parents and others is particularly important, since it will help make visible not only those who provide care, but the importance of taking concrete steps to support caregivers in their communities. This missing piece - - valuing care provided by parents and relatives -- should be added to and integrated with continuing efforts to ensure a range of high-quality, community-based child care services that can support the needs of children and families.

References

- Day, T. (1992). The perils of woman-blindness in data collection. Paper prepared for the First Conference of Feminist Economics, Washington, D.C., July, 1992.
- Goldschmidt-Clermont, L. (1993). Monetary valuation of unpaid work. Paper prepared for the International Conference on the Measurement and Valuation of Unpaid Work. Ottawa, April, 1993.

12. Measurement aspects of the trade-off between market work and unpaid work on behalf of family and community

Chairperson: Monica Townson, Fair Tax Commission (Ontario)
 Rapporteur: Mary Helen Spence, Ontario Women's Directorate
 Organizer: Penny Basset, Statistics Canada

The following were participants in this workshop:

Anne-Marie Julien	Status of Women Canada
Lynne Westlake	Health and Welfare Canada
Yoshiko Kuba	Tokyo Gakugei University
Gustave Goldmann	Statistics Canada - Census
Sunita Kapila	International Development Research Centre
Jean-Pierre Lavoie	Public Health, Montreal
Lisa Barham	CARNET - University of Guelph
Carol Bayne	Federation of Junior Leagues of Canada
Jo-Ann Myles	Federation of Junior Leagues of Canada
Misha Capler	National Welfare Grants
Kathleen Thomas	Canadian Congress of Learning Opportunities for Women
Connie Boynton	National Defence
Monica Townson	Ontario Fair Tax Commission
Phoebe Jones-Schellenberg	Wages for Housework Campaign
Louise Vandellac	Université du Québec à Montréal
Lynn Greenblatt	Seniors Secretariat, Health and Welfare
Tina Head	Canadian Advisory Council on the Status of Women

The discussion did not assume that a trade-off between paid and unpaid work necessarily meant choosing one or the other but also considered balancing both simultaneously.

1. What are the data needs?

a) For General Public Policy Purposes:

- how publicly delivered social services are affected, e.g., the additional stress upon individuals that in turn places additional demands upon the health care;
- better information is needed so that public policies are not developed based upon misguided assumptions, e.g., transfer of services from the publicly funded sector to the "volunteer sector";
- information about the trade-off is needed so that appropriate public policies can be developed, e.g., impact of the trade-off upon women's retirement incomes.

b) To support informed decision making by individuals

c) Measurement attaches "value" to the work:

- crediting for informal learning from household work and volunteer work outside the home

d) For Research Purposes:

- impact of changing demographics on the trade-off
- impact upon income distribution

2. What do we want to measure?

How or if, can you measure cultural differences with respect to family responsibilities?

All measures should be available free from gender bias, on a gender basis, presence and kind of dependants and the availability of support services.

The way in which data is selected and the linkages made with the data is crucial, e.g., absenteeism data related to family responsibilities should also be related to availability of support services.

- a) the relationship between family responsibilities and absenteeism
- b) how different types of work arrangements are affected by family responsibilities, e.g., part-time work, flexi time, job sharing, shorter work week, working out of the home
- c) interruptions to paid work due to family responsibilities both in the long-term and the short-term
- d) how does the amount of unpaid work affect the amount of time available to look for paid work or housing
- e) how much time do battered women spend picking up the pieces in their lives
- f) the impact of the trade-off on children
- g) treatment by employers of employees involved in volunteer work, by gender
- h) issues involved when paid work takes place in the home or when family responsibilities take place in the work place outside of the home
- i) in measuring unpaid work the management function that is not a separate task gets lost in the existing measures

- j) in order to measure the trade-off, the concepts used to measure unpaid work should be available to measure paid work so that comparisons can be made.

3. Recommendations

- a) Better ways of making the public aware of existing data.
- b) More user input into what gets highlighted in Canadian Social Trends and Perspectives on Labour and Income.
- c) Special attention to the needs of advocacy groups for data bearing in mind that they often do not have technical expertise nor the resources to hire it.

13. Measuring seniors' contribution to the economy and the community well-being

Chairperson: Susan Fletcher, National Advisory Council on Aging
Rapporteur: Barry Wellman, Centre for Urban and Community Studies, University of Toronto
Organizer: Leroy Stone, Statistics Canada

The following were participants in this workshop:

Ruth Brown	National Council of Women
Susan Fletcher	National Council on Aging
Robert Mundie	Social Policy Branch, Health and Welfare Canada
Louise Plouffe	National Council on Aging
Evelyn Shapiro	Centre for Health Policy, University of Manitoba
Leroy Stone	Statistics Canada
Judith Stryckman	National Council on Aging
K. Victor Ujimoto	Gerontology Research Centre, University of Guelph

Purposes of our Recommendations:

For Seniors:

Resources Documentation: (Like home-makers), the existing contribution of seniors is not appreciated.

We want to document:
how much they are doing;
how much of an unused resource is there to be tapped.

(Lack of) Dependency: on the one hand, some seniors require lots of help from others. On the other hand, this requirement has been stereotypically overemphasized. At the same time, the help that seniors provide

to others has not been well-documented (childcare, etc.)

For Society at Large:

There is a need to document the extent to which we are not just a society of atomized individuals, but rather the extent to which we relate to each other in caring, supportive, community-minded ways. The world consists of more than the home and the workplace.

We focused on Time-Use Data in the recent 1992 study:

We appreciate the extent to which these data make visible the heretofore less visible, and the focus of the coding scheme on unpaid activities. However, we see ways to make it much more useful in terms of the questions asked, the precodes and the coding of the open-ended responses. We especially would like to see the further development of the social side of time use. (One of suggested "time usefulness"). There's an individualistic bias in how the data are currently recorded which may distort analysis.

Questions Asked:

There is an unwarranted assumption that some activities are always paid and others are not. For example, childcare can be paid or not; or post-retirement professionals can be doing certain kinds of work for free (e.g., emeritus professionals; retired accountants helping with income tax). Hence we recommend that a routine question be added and asked where appropriate: "Was this work paid or not?"

We further recommend that each activity be queried for the satisfaction that it generates. This would provide valuable information about all of the activities in which Canadians engage. Are we happy in what we do?

Precodes:

The relationship precode is ambiguous with respect to children, other family members and non-family members. We urge the following alteration to the existing codes:

Other family members in HH;
Children Outside HH (sub-divided to under/over 18);
Other Family Members Outside HH;
Neighbours;
Friends.

We urge the collection of information about whether this type of activity was done for someone else. At present, there is much less informative information only about whether the activity was done in the presence of another.

To make interpretations of findings much more useful, we recommend that sociodemographic information be collected at the end of this schedule about all persons named by the Respondents in the time-use section: age, disabilities, gender, family status, employment status, precise kinship relationship, etc. We further recommend that such information also be collected about activity done for Generalized Others (e.g., gathering items for the Food Bank).

Postcodes:

We appreciate that the existing 99 category coding scheme has been developed internationally over several decades. Hence we do not propose any deletions or revisions to it. Rather, we are urging that a number of "third-digit" subcodes be added to make the existing codes more informative with respect to social activities. At present, the coding scheme reads like what an extreme behaviourist would record watching a silent movie. It ignores cognition, sociability and the higher mental functions (for example, there are no items on managing or giving emotional support). Hence there are serious dangers that the existing coding scheme will underestimate what people are doing with and for each other.

Our orienting principle is to document the kinds of exchange that take place among adults and suggest that this be at least as well-developed as the existing codes for how one cares for children.

One easy place for expansion is code 66 on volunteer work. This should be specified as work for volunteer organizations (as distinct from informal interpersonal help). We recommend four subcodes:

- Being trained
- Direct (hands-on) service (e.g., Meals on Wheels deliverer)
- Indirect service (e.g., board membership; attending meetings)
- Service to general populations (e.g., aid to starving Bosnia)

We also urge an additional set of Informal Interpersonal Support codes that would tap affective and cognitive aid. We quickly drew up an indicative list:

- Giving advice about family matters
- Giving advice about other matters

- Emotional support for minor problems
- Emotional support for major upsets
- Giving information about jobs
- Giving information about health
- Giving information on other matters
- Giving love and attention

Symmetrically, data should also be collected about receiving support in all of the above categories.

Another coding category that was missing was: Managing things (including financial management).

We note that many speakers interested in studying Unpaid Homework have made the same point.

We recommend that when reporting time spent in activities, the time spent in transit to and from the activity be incorporated in the description of time spent for that activity. This is important in studying volunteer activity, interpersonal support, etc. It can easily be done through data linkage, and we call for a review of the coding process to ensure that this is being done thoroughly.

Revised and New Questions:

We recommend a continuation of existing question D11 in the 1992 survey, but not just for last month. Rather, ask about "in all of the activities you have just reported."

We were dismayed that C6 looks only at care for one's own child. It neglects caring for grandchildren and others. We recommend revision so that the question asks in general if there is care for a child (children), with follow-up questions for Who? Where? What Ages? Why? with special reference to disabilities.

Similarly we recommend that a similar set of questions be asked about caregiving for adults; most (but not all) we assume will be seniors or disabled.

Additional Instruments

Although the preceding suggestions would greatly improve the usefulness of time-use data, we strongly believe that it cannot provide comprehensive information about the extent to which Canadians care for and about each other. Hence, we urge the further development of additional instruments that can capture supportive and non-supportive aspects of relationships with household members, friends, neighbours, relatives, workmates, and members of voluntary organizations (churches, social service,

fraternal, etc.).

We recognize that in this brief workshop we cannot make comprehensive recommendations. However, we did note the following areas for concern:

- Measuring Emotional Support;
- Measuring Companionship;
- Measuring Important Non-Supportive Relationships;
- Measuring Financial Contributions to other people and institutions;
- Identifying activity spent in managing one's and other's affairs;
- Identifying the Personal Costs that Volunteers Incur, both in terms of financial and life-stress;
- Identifying strains accompanying the transfer of social services from public institutions to informal and volunteer aid;
- Identifying the skills in which both formally-organized volunteers and informal interpersonal supporters need to be trained to perform their roles effectively.

14. The Division of Household Labour

Chairperson: Rebecca Warner, Oregon State University
 Rapporteur: Karen Seccombe, University of Florida
 Organizer: Katherine Marshall, Statistics Canada

The following registered for this workshop:

Arlene Strugnell	Federated Women's Institute
Patty Holmes	Secretary of State Canada
Patricia Connelly	St. Mary's University
Robin McKinlay	Ministry of Women's Affairs - New Zealand
Ruth Berry	University of Manitoba
Meg Luxton	Atkinson College - York University
Louise Vandellac	Université du Québec à Montréal
David Sharpe	Canadian Centre for Philanthropy
Mobinul Huq	University of Saskatchewan
Richard Kerr	Department of Justice Canada
Frances Woolley	Carleton University
Roland Savoie	Action éducation femmes - Ottawa
Josephine Stanic	Statistics Canada
Yoshiko Kuba	Tokyo Gakugei University - Japan
Kazuyo Kakinoki	Tokyo Gakugei University - Japan
Marie-Luce Bernard	Status of Women Canada
Martha MacDonald	Economics - St. Mary's University
Suzanne Garon	Université de Sherbrooke
Karen Seccombe	University of Florida - USA
Rebecca Warner	Oregon State University
Katherine Marshall	Statistics Canada

Our session had 21 people in attendance. The Chair began the workshop by introducing two major themes: (1) why are we interested in measuring the division of household labour; and (2) what are some of the problems associated with the way in which the division of household labour has been traditionally measured? Each of these will be

discussed below, followed by a summary of the ensuing discussion.

1. Why are we interested in measuring the division of household labour?
 - a. One reason is to understand the relative time that men, women, and others devote to domestic tasks. We may be interested in knowing how people spend their day, and who does more of the household labour. These data can be used to make basic comparisons across households, nations, and over time.
 - b. Others have been interested in the division of tasks that make up what is considered household work. Here the focus is not on the time spent in the activity, but rather, on who does what and how these tasks are organized. Included in this perspective are both visible as well as invisible activities such as planning, management, and remembering.
 - c. Finally, many are interested in the division of household labour as it is an important factor in explaining variation in the relative status of women and men in society. This approach would require both estimates of time and an understanding of how work gets organized and carried out.
2. Next, we discussed methodological as well as conceptual problems associated with traditional measures of the division of household labour.
 - a. Many researchers collect data on the time people spend on tasks believed to be common across households. These "common" tasks may not reflect the diversity of work done in families. The types of tasks that are performed in households vary over time and across both family structures and social class. The traditional set of tasks often do not include things such as making appointments, finding a babysitter, chauffeuring children to ballet lessons, etc.
 - b. There are also problems associated with data collected via time-use strategies. One major problem is what to do with simultaneous activities such as "watching children while preparing dinner." Typically, preparing dinner gets coded as the primary activity, and the child care gets lost as secondary activity. This approach is fraught with measurement and valuation difficulties. For example, if these combined

activities take thirty minutes, time-use studies would not adequately reflect replacement costs.

- c. Most measurement strategies for the division of household labour miss invisible labour. Invisible labour includes such things as household management, emotional caregiving, kin keeping / net working.
 - d. An additional problem arises when we try to separate activities into work and leisure. Researchers have found that women and men spend approximately equal amounts of time in leisure activities, however, those activities are gender specific. Furthermore, we discussed that many of the activities that primarily fall to women, such as letter writing, or phone calls to kin are mislabelled as leisure but should be conceptualized as domestic labour.
3. After the chair made her presentation, we opened the workshop for discussion. Several important themes emerged.
- a. Many participants highlighted the point that traditional measures do not adequately assess the invisible work done within the home. Invisible labour included such things as:
 - money management: how is money spent, accounted for, and controlled
 - scheduling the "family calendar" to keep track of events and appointments
 - remembering and noticing: e.g., how much milk is left in the refrigerator, how many milk tickets does our child have left?
 - b. We also discussed the issue of choice. How are the choices made as to who will do which tasks? These involve the balance of power within the relationship.
 - c. We agreed that the study of the household division of labour could be improved by incorporating qualitative studies. Unfortunately, many funding sources will not fund purely qualitative work. But we agreed that qualitative research can add an important dimension to our understanding, as well as enhance future quantitative research. For example, one strategy could include tracking women and men throughout their day to observe the visible and invisible labour performed as well as the consequences of that labour upon subsequent activities.
 - d. It was noted that household labour is not always done in the confines of the home. Research should look beyond the nuclear family as the unit of analysis. We should look at the work done by neighbours, schools, day care providers, and other social support networks.
 - e. Further research is needed to understand the division of household labour within diverse family structures. We currently know very little about the division of child care, for example, in dual-custody households.

H. VISION OF THE FUTURE

Betty Havens
Manitoba Health

It appears above all else from the varied and constructive criticisms of the current data and analyses that consensus exists around one major fact: Canada at least and seemingly other countries, do not have an adequate conceptualization and measurement of those aspects of the national economy that are not represented in the paid labour sector. This includes all of the forms of productivity which are not remunerated in the usual accounts relative to the labour force, such as those tasks and qualitative efforts undertaken for oneself, one's household, one's family, one's informal network, one's community and for the greater good of the society.

Definitions and measurements are inadequate at best and confusing, contradictory or lacking at worst. It seems apparent that monetary valuations of these elements are fraught with major problems. If any unit emerged as having potential measurement merit, it was time spent not dollars earned. The complex nature of tracking values of transactions to beneficiaries were often represented by multiple stages or steps and crossed multiple boundaries of activity. These processes frequently create complex interdependencies and functional reciprocities which demand a greater sophistication than has been brought to bear to date. Some of the elements exist as do the over-arching conceptualizations such as the total work account system. Further, the means of measurement such as time-use studies abound but the iterations among these components are largely lacking.

In summary, none of the workshop summaries which I read (1, 3, 5, 6 and 13) indicated satisfaction from the participants. In some instances definitions were problematic; but in all cases, the "quality" of and motivation for activities performed were deemed to be unmeasured or perhaps unmeasurable. In other cases, the methods and reasons for measuring non-traditional (or is it the truly "traditional"?) productivity were deemed to be so poorly understood as to render measurement useless and potentially damaging. The greatest controversies, however, centered around monetary valuations of these activities.

Some of the workshops formulated very specific recommendations which will be included in the final report though they have not been mentioned here. A theme which pervades much of the conference content is the inadequacy and inappropriateness of

market or labour language for concepts in this sphere of activity. Inappropriate symbols may be seen to be driving our efforts in this conference, and in our research, in inappropriate or incorrect directions.

Virtually all groups addressed the necessity to collect data repetitively in order to deal with trends over time. Several groups identified the value of linking data sets and of adding purposeful content to existing surveys. That is, if a small number of questions were purposely added to several surveys, creating a conceptual whole across surveys which were able to be linked, much could be gained with relatively less investment than creating a whole new survey or analytic process.

Another theme was that all those who perform activities primarily outside of, or in addition to, the paid labour force perceive themselves, at least individually, if not collectively, as undervalued or marginal; eg., women, new Canadians, minorities of all kinds, seniors, caregivers in general, homemakers or household managers specifically, and volunteers; i.e., we all need to be recognized as being of value to our societies.

I want to spend a few minutes linking this conference content and activity to some related aspects of health and aging.

Health and aging

The major concerns surrounding the delivery of health care to an aging society stem from several demographic realities. It is well documented that our societies are aging at dramatic rates and this is especially dramatic among the very old cohorts. It is also well known, that women are more predominant among the older age cohorts. After age 85, there are almost three women for every one man. It is known that our population is highly mobile with half the population having moved during the past decade and over a third having crossed a provincial boundary with these moves. Finally, we also know that the population over age 65 consumes a greater proportion of total health care expenditures than they represent as a proportion of the population. However, none of these should be interpreted as creating a crisis in the health care system.

Perhaps less well known is that the members of the present cohorts in their late 70's, 80's and 90's had very few children during the baby depression from 1926-1945. Therefore, there are very few adult children to provide care to these cohorts of aging parents and other relatives. It should be noted that this was not true of the previous generations, nor is it true of the next generation who are the parents of

the baby boom, that is, the baby depression adults, themselves. However, this does not change the fact that the current older population has few younger relatives to call upon for care or other assistance.

Even with this demographic "thinning" of the potentially supportive portion of the population structure, the current older population receives over 80 percent of its care from the informal support network of family, friends, and neighbours. This 80 percent of care being provided by the informal network has been remarkably consistent over the past three decades and across jurisdictional boundaries (See for example: Chappell et al, 1986 and Kane et al, 1990, p.342). Therefore only 20 percent of the care consumed by the older generation is being provided by the formal care system. Families and other members of the informal network have not been deserting or "dumping" their older members into the formal care systems. Informal support has continued with the introduction of publicly supported or insured health care services.

One of the results of the limited number of adult children is that informal care is more likely to be provided by members of the same or immediately adjacent cohorts; i.e., spouses, siblings, friends and even neighbours, who are also old. Therefore, these care providers are themselves more vulnerable and more likely to become consumers of formal health care services. Also they may be less able to act as the link between the client or family and the formal bureaucracy. This is an important role which is often played by children, even those who are geographically remote from their parents (Shanas, 1979).

It is, consequently, essential that an adequate interface between the formal system and the informal network be forged and then maintained. It is of little value to have informal support provided to an older person at the expense of the health status of the care provider, who may become the next formal service consumer (Haug, 1985). It is from this perspective that respite care, adult day care, and social or intermittent readmissions to facilities become critical to maintaining both the care of the client in the community and the health of the provider.

It is important that providing support to the caregiver be viewed as a legitimate goal of the formal care system and as an appropriate objective in the care plan for the client (and his/or her informal network). If assessment and care planning by the formal system incorporates determining what the client can do for him/or herself and what the members of the informal network can

realistically be expected to undertake, then the care plan should also include the means to support both the client and the care provider.

Another effort to support this demographically "thin" adult/child population of informal caregivers is elder care. These programs have been developing in United States corporations and a very few Canadian corporations over the past decade. They function by providing flexible hours, short-term leaves and elder care information to employees who are caring for sick, disabled or frail older family members. A few corporations even provide adult day care on site.

These corporations have found that these programs have reduced stress in the workplace, increased job satisfaction, and reduced absenteeism, employee turn-over and premature retirement. Several national corporations have extended care management and information services to an older family member who lives in a community which is geographically distant from the adult/child caregiver. (See for example, Chappell, 1989).

The role of women in health care and caring

Women account for both the larger proportion of health care consumed and the majority of caregiving, both formal and informal. In part, this results from the disproportionate numbers of older women, especially among the very old (Lewis, 1985). However, it is also true that women consume health services disproportionate to their numbers. In a recent article Una Maclean (1985) refers to this as a fascinating paradox. She notes that women get sick more often but their survival capacity is greater than men. Maclean stated that "in epidemiological terms, women experience higher morbidity but lower mortality" (Maclean, 1985, p. 674).

Women have also been the traditional carers of the child, the disabled, the weak, and the old. As such, with the increasing numbers of older persons and the accompanying increases in morbidity, women will have ever increasing roles in providing care. Again, Maclean's point is important: "both at home, with minimal help, and in institutions women bear this burden. We urgently require epidemiological investigations into the experience of disability and aging, both as it affects patients and all the women who have to cope" (Maclean, 1985, p. 675). It is startling that so little attention has been paid to the feminization of formal care and especially of long-term care. It is not unusual for the visitor to a long-term care facility to decry the absence of men as residents; but very few even notice the absence of men among the staff, except in administration. It is simply assumed that women

provide this formal care along with their informal caregiving roles.

Research issues

Therefore, in looking to the future of health care and aging with limited human and fiscal resources, it is imperative to know what women will do and how they will behave over the next several decades. This leads to several potential research questions. Will women continue to consume health services disproportionate to their numbers? Will they continue to experience higher morbidity and lower mortality? Will they continue to predominate within the staff of the formal care system? Will they continue to provide the ever increasing amounts of required informal care?

There is little evidence from the research (Mossey and Shapiro, 1985) that consumption patterns will reverse; thereby, producing reductions in health service consumption by women. There is also no hard evidence that morbidity among women is decreasing or mortality is increasing, nor that such changes can be expected in the near future. If the career counselling and curricula materials are any indication, we must also expect that women will continue to dominate as staff in the formal health system. We are less clear about whether they will continue to provide the requisite informal care, as more women work outside the home and choose career patterns which make full-time informal caring less possible.

Do we want to continue to strain the intergenerational family structure and to burden women without adequate systemic support to their caregiving? Further, will we continue to financially penalize those women who must, or choose to, opt out of paid employment to provide care? That is, at present these women not only lose current income, but simultaneously they must forego, at least, portions of pensions in the future due to loss of contributions and loss of service years. This "reward" of future impoverishment for care provided to our older and disabled population is totally inconsistent with any sense of equity.

Strategies for change

It seems apparent that there are several changes which can and should be made to the system. Certain of these changes are capable of being implemented in the near future and others will require a longer time frame for action. The assumptions of an aging population, of limited resources, of universal access to health care and of equitable distribution of benefits which are

consistent with the Canada Health Act, have been taken as essential to the strategies suggested.

In the short range, it will be necessary to: (1) provide services in the face of reduced family size and aging of the informal support network over the next fifteen years; (2) reform the pension system to preclude penalizing those women who opt out of employment to provide care to family members; (3) provide services from the formal system to support informal caregivers; (4) initiate corporate elder care programs to support informal caregiving of employees, including those in the health industry; (5) reorient health services education to consider care as being as legitimate as cure; (6) develop ways to use "high tech" aids to support informal caregivers in the community; (7) emphasize the training of men in all health care fields; (8) initiate adequate epidemiological and behavioural research on women, and especially older women; and (9) introduce reforms based on analyses of the costs of health service utilization which distinguish among the costs of prevention, cure and care in an aging population.

I want to expand briefly on the point about research on women. Since Maclean's 1985 plea for an understanding, not only of patients but of "all women who have to cope" (Maclean, 1985, p. 675), there has been more epidemiological research on aging and older women; but there is still virtually no research on women employed in the formal health care system, let alone those who are also informal caregivers. There has been one article on the health status of nurses in long-term care institutions (Miller, 1985) and one on nursing assistants in various institutions (Lawrence, 1992) and one book (Feldman, 1990), which looks at the reported health of home care workers; but none of these sources identify informal caregiving roles. There have been many more studies of the health of informal caregivers in the intervening years; however, none of these have identified informal caregivers who are also employed as formal caregivers (see for example Stone, 1991 and Havens, 1992).

Several of my colleagues and I have tried to work this question into various national surveys, but to date we still have not prevailed. I, for one, will continue to try to persuade researchers to include this critical aspect of study in surveys to improve our understanding of caregivers and of volunteers. This speaks also to the "quality" of and motivation for the activities performed and the need to be recognized, which the workshops identified. We can and must do better in collecting these critical kinds of data in order to sustain the Canadian health care system as we know it.

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A. Regula Herzog The University of Michigan

I am delighted to be here and participate in these discussions on unpaid work. This is an important topic (a) if we intend to develop a realistic picture of productivity in society that goes beyond goods and services traded in the market and (b) if we intend to learn what specific members and groups of the population contribute. Those among us who are interested in older adults, but also those interested in women or in minorities, undoubtedly know that the contributions of these groups are disproportionately of the unpaid kind.

My assignment here is to talk about the methodology of measuring unpaid work drawing

from my own experience as well as the discussions of yesterday's sessions. Because my experience is mostly with alternative measures – or what some have called stylized measures – and because most of you are quite well acquainted with time budget measures, I will focus on alternative measures. For many survey researchers who have to deal with limited interview time these are the only feasible measures and we consider time budget measures as the unattainable gold standard. I was therefore interested to learn from yesterday's discussion about the concerns voiced with time budget methods, including issues of the appropriate time interval and time sampling, of measuring secondary activities, of appropriate coding schemes, and of requests for more information on the context and recipients of unpaid work.

Because this is a meeting devoted to planning research I chose to take this opportunity to focus on some of the problems that we face with alternative measures of unpaid work, with the hope that we might address some of them in future research. These problems, as I see them, are predominantly related to the cognitive processes that come into play when answering survey questions and I will focus on them. I will end my comments by describing some of the evidence I found most useful in thinking about the quality of the measures and thus, hopefully, leave you with some suggestions for future methodological research.

In drawing on my own experience I wish to acknowledge my colleagues at the U of M who participated with me in the Americans' Changing Lives or ACL survey in which we made a major effort to measure and analyze non-paid productive activities.

Research program on productive activities at the University of Michigan

Tony Antonucci
Rose Gibson
Regula Herzog
James House
James Jackson
Robert Kahn
James Morgan

The assumptions that frame my comments are as follows:

- We want measures of unpaid work that provide us with quantitative estimates of time spent and, as such, go beyond vague quantifiers such as "always," "often," "rarely," and "never."

- We want to measure time spent in a broad range of activities that hopefully comprise most or all of the universe of unpaid work. The activities most often mentioned at this conference that appear to fall into this category include:
 - housework
 - child care
 - volunteer work
 - dependent care
 - home production of food etc.
 - home maintenance
 - unpaid work in the labor force
- Some of the activities that we want to measure are relatively rare, such as volunteer work, and we also want good individual level data. Therefore, we need a relatively long observation period.
- We need measures that can be included in relatively large multipurpose survey efforts. Therefore their administration cannot be time-consuming, in other words, we cannot use the time budget or diary method. For example, the Canadian Census wants one or a very few questions that measure all unpaid work. This was a theme pervading the many discussions.

Let me start with describing the way paid work is often measured in surveys and use it as contrast when discussing the measurement of unpaid productive activities.

J3. Including paid vacation and sick leave, how many weeks altogether were you employed during the past 12 months?

_____ weeks in last 12 months

or from ____/____/____ to ____/____/____
month day month day

J9. On the average, how many hours a week do you work on this job, including paid and unpaid overtime?

_____ hours per week

This is a reasonable measure and it yields reasonable data compared to what we know about the labor market from other sources such as the U.S. Bureau of Labor Statistics. Unfortunately, the measurement of unpaid work is not as simple.

A first problem has to do with the definition of productive unpaid activities that is given to the respondent in the stylized measure. If the activity cannot be clearly defined, the respondent will have

difficulty understanding the respective survey question and will impose his or her own interpretation on the question. This will produce random or systematic error in the resulting survey responses, depending on whether the misunderstanding leads to variable or systematic interpretations.

Take the example of housework, an activity we probably all think we know well. Think for a moment how many hours per week you spend in housework. Did you include laundry, child care, yard work, grocery shopping? Should they be included? If not, under which other category might they be included?

Now contrast housework with paid work. Paid work, it seems to me, is better defined. It is typically thought of as being performed under somebody else's direction, away from home, and during well-specified and usually regular hours. There still may be questions on whether travel to and from work is to be considered part of work, whether lunch and other breaks are, etc. I also admit that for those being self employed, working at home, working part time, etc., which is more often the case for women or minorities, the definition of paid work may be less clear. Nevertheless, I would argue that the meaning of paid work is clearer than that of housework or, even worse, that of caregiving or volunteer work. Evidence supporting the worse validity of measures of ill-defined activities (e.g. helping others) compared to measures of well-defined activities (e.g., movie attendance, religious participation) has been reported by Robinson (1985).

Another related problem that affects definitional clarity is how one organizes the myriad of unpaid productive activities into a limited set. Unfortunately, the more specific activities are usually clearer in their definition than the more general ones: by going to a more general and therefore a more abstract level some of the definitional clarity is lost. Consider the just mentioned example of housework. It would be clearer to ask about cooking, doing the dishes, laundry, etc. than about housework in general.

What researchers often do in order to preserve the definitional clarity of the specific activities is to include all or many of them in the formulation of the question. Thus, a question on housework might read "Do you do any housework such as cooking, cleaning, shopping for groceries, or washing clothes?" But we know from cognitive laboratory work that long questions loaded with many examples are difficult to comprehend in the first place and difficult to remember in the second.

The course that we took in the ACL project was a kind of hybrid of various previous formats.

F12. Now let's talk about housework, including cooking and cleaning and doing other work around the house.

F12a. Do you prepare food for meals or wash dishes?

1. Yes 5. No

F12b. Do you do grocery shopping?

1. Yes 5. No

F12c. Do you clean or vacuum?

1. Yes 5. No

F12d. Do you do laundry?

1. Yes 5. No

F12e. Do you sew and mend?

1. Yes 5. No

F14. Altogether, about how many hours do you spend doing these things in an average week?

_____ hours per week

Based on information from time studies we judged the listed activities to be the major components of what we would call housework. This format has several advantages. First, it requires the respondent to deal actively with each component activity by answering whether he or she does it. According to cognitive theory, this will help respondents to remember the components when answering the final question about hours. It will also suggest a way to "decompose" the general activity category of housework for estimating hours. Bradburn and his colleagues (Bradburn, Rips, and Shevell, 1987) have suggested decomposition as an estimation strategy that respondents use for answering survey questions. I will have more to say about this in a minute.

The next set of problems confronting a respondent refer to the ability to recall the number of hours spent, assuming the nature of the activity has been properly understood and remembered. According to cognitive psychology, one dimension that affects recall strategies is whether the activity in question is a rare or a frequent one (Blair and Burton, 1987; Burton and Blair, 1991). If it is rare – examples of rare activities are various maintenance activities such as painting the house or fixing the

car – the respondents will try to recall the specific incidences and figure the time spent on these. If the activity is frequent – housework is a prime example – then the respondent will switch to an estimation strategy rather than recall each specific incidence of the activity, unless the recall period is very short such as a day in the time budget methodology. A simple estimation strategy might be to think about a relatively short time unit – say, a day or a week, establish a frequency or rate, and generalize from that to the entire year (Bradburn, Rips, and Shevell, 1987). For paid work, this strategy is actually suggested by the typical question format shown before. For housework a similar estimation procedure might work. For maintenance of house and yard, however, this simple strategy no longer works because many of these activities, although frequent, are seasonal or irregular for other reasons. Consequently, the required estimation procedures are more complex and the respondent – taking the easy way out – will often resort to a more simple estimation procedure that can lead to severe under- or over-estimation.

The complexity of the required estimation procedure increases further when specific activities of different regularities and patterns are included in the same category, when activities overlap, and when activities take place in fractionated ways.

Next I have some questions about work you do to maintain or improve your home, yard, or automobile.

F7a. In the last 12 months, did you yourself do any painting, redecorating or repairs on your home?

1. Yes 5. No

F7b. Did you yourself do any work in your yard or other areas outside your home? Please include things like mowing the lawn, weeding plants, or removing snow.

1. Yes 5. No

F7c. Did you yourself grow, freeze or can any of your own food during the last 12 months?

1. Yes 5. No

F7d. Did you yourself do any repairs on a car or truck that you own?

1. Yes 5. No

My favorite example for the complexity associated with many activities of different regularities is what in the ACL we have called home maintenance. According to our definition, home maintenance includes upkeep of house, yard, automobiles, and home production. Upkeep of the yard is definitively seasonal although it may be quite regular within season. Growing of food is also seasonal but probably less regular than yard work. Painting the house, putting a new exhaust system into the car, etc. are occasional events that are not frequent enough to achieve a regular pattern. Adding the number of hours spent on each of these activities during a given year can be quite a challenge.

In terms of questionnaire design, we need to think carefully through the cognitive load and the time required when answering such complex questions adequately and perhaps consider simplifying the task or suggesting to the respondent a decomposition strategy by breaking the question up into more specific activities. Unfortunately, such modifications usually lead to additional time spent in asking and answering the questions.

The second complexity affecting estimation of hours is omnipresent: Despite what high school teachers preach, most people do multiple activities at the same time. Many of you have commented on this. The combination of housework and child care is a prime example: Mothers watch children, help with homework, and impart crucial lessons of life while at the same time, cooking, washing the dishes, and doing the laundry. Therefore, when we asked in the ACL about child care and independently (and in a different part of the questionnaire) about housework, some women gave very high hour estimates for both activities. Wised up to the potential of overlap we asked in the second wave of ACL about doing the two activities jointly; a majority of women with children answered that they often did them jointly.

How one deals with this issue in designing a questionnaire depends on the purpose of the study. If one wants the best possible measure of child care activities, this activity ought to be the focus. If, on the other hand, one aims towards an accounting of time, one must deal with overlapping activities head-on by getting a direct measure of overlap and adjusting for it.

The third complexity affecting estimation of hours comes up when activities are fractionated rather than continuous. Whereas for many of us paid work happens between 9 and 5, time spent on housework or help to children and elderly can be much more piece-meal and therefore more difficult to estimate. We recently thought through the issues

involved in measuring help given to an older dependent person. Dependency is often defined by whether somebody needs assistance with eating, bathing, toileting, walking, and the like. Whereas eating and perhaps even toileting have a certain routine to them, assisting in walking across the room seemed more difficult to ask, partly because it may have to happen on numerous occasions throughout the day but only take a few minutes each time.

The last problem that I would like to mention with respect to ease of recalling hours refers to the response scale. The specific format of the response scale can add considerable complexity to the task of answering the question. If the response is open-ended ("How many hours do you spend annually in home maintenance?"), the task is formidable. Now compare this to the following response scale.

9. (RB, P. 29) Altogether, how many hours did you spend doing these things during the last 12 months? (Would you say less than 20 hours, 20 to 39, 40 to 79, 80 to 159, or 160 hours or more?)
1. Less than 20 hours
 2. 20-39 hours
 3. 40-79 hours
 4. 80-159 hours
 5. 160 hours or more

The task appears more manageable now, because the response scale communicates to the respondent that there is no need for the exact number of hours, only for a range. And in fact, respondents appear to simplify the open-ended question in a similar way. If you ever looked at responses to open-ended questions about hours or days per year, you will have noticed that they cluster around round numbers, (e.g. 12, 50, 100, 200, etc.).

Of course, the development of appropriate brackets requires some care for the following reasons. First, they should be phrased such that they capture the variation in the behaviors. That is, housework on which most people spend a fair amount of time should have different brackets than volunteer work on which even those who do it spend relatively little time. Second and more subtle, the response categories provide the respondent with a frame of reference: their specification may be understood by the respondent as reflecting the

response distribution in the population. A "lazy" respondent may then just figure how his or her answer would compare to that of others and accordingly chose a high or low bracket (Schwarz and Hippler, 1987). For example, a housewife who thinks that she does a lot of housework compared to others would chose a top category almost irrespective of how it is labeled, whereas a housewife who thinks of her housework as average may chose the middle bracket.

Now that I have described some of the problems that I see with measures of unpaid productive activities, let me turn briefly to the types of evidence that I found most useful when trying to establish the validity of these measures.

The most basic information about the validity is provided by comparing data from these measures with data from presumably more accurate measures such as time budget studies, beeper studies, reports over short time periods, and the like. I cannot claim to have done a systematic review of this literature but most of the studies with which I am familiar lack methodological rigor. Often they compare response distributions obtained in one study with one particular measure to distributions from a completely different study with different measures, and thus they confound differences in study design and sample with differences in measurement. Nevertheless, some support is found in this research for the claims I made before, namely that the definition of the activity is critical, that irregular activities are less well reported than regular ones, and that the lack of attention to overlapping or parallel activities leads to overestimates of total productive time. But more generally, the correspondence between data from time budgets and from stylized measures is not always good.

Insight into the thought processes underlying these sometimes erroneous behavioral reports is gained by two research traditions. One utilizes techniques such as interviewer probes, respondent verbalization ("think aloud"), or retrospective protocols in order to observe the response process. This is often referred to by survey researchers as the cognitive laboratory. Probes have, e.g., been used by Keller, Kovar, and Jobe (1993) to show how respondents had interpreted a survey question in different ways. Respondent verbalization had revealed to the ACL investigators how complex the process of answering the question on home maintenance was. Retrospective reporting has been used by Burton and Blair (1991) to demonstrate the switch from reliance on specific recalled episodes to an estimation procedure.

The second research tradition is the experimental cognitive tradition according to which mental processes are experimentally manipulated and their outcome assessed. For example, Blair and Burton (1987; Burton and Blair, 1991) show that the choice between episodic recall and estimation strategy is related to the length of the recall period – and thus the frequency of behaviors – by experimentally varying the recall period. Or, Schwarz and Hippler (1987) experimentally varied the labels on response categories for questions on TV watching in order to investigate the frame of reference effect on behavior reports that I described before. I think this experimental cognitive research represents a budding and very exciting research tradition that has much potential to illuminate the cognitive processes underlying the answers to stylized measures.

Let me conclude then by making the following points:

1. For many surveys we need to use stylized measures of unpaid work because time budget measures are not feasible.
2. While I have focused on some problems with stylized measures, I do think they work quite well for ordering people on a type of ordinal scale according to their relative activity level, a conclusion reached by others who have studied the correspondence between time budget and stylized measures, for example Robinson (1987).
3. I think the problems that I mentioned are most relevant when the stylized measures are used to establish absolute numbers of hours spent in various activities.
4. The limitations are in part due to the complexity of the task and in part to the limitations of the human cognitive system.
5. Research on the cognitive processes that underlie responding to stylized questions has started to point out where the problems lie and how we might structure questions so that they can be answered more adequately.
6. This is what I think we should do before we go too far with the stylized measures. Thank you.

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Thank you very much, it's a great pleasure to be here and to have a chance to convey to you the "truth". The "truth" will not only be the truth of my book, "The Total Incomes System of Accounts," to which you've had reference, but really a set of truths which have been picked up, which are reflecting truths conveyed in the two days of lectures, conferences and workshops that we've had here.

Let me begin by recalling Ivan Fellegi's remark that for Canada, at least, the question is not whether, but how to measure unpaid work, and the production of households. I wish I could say it was exactly the same for the United States, but we still have the question of how **and** whether, and I suppose to the extent we, at this conference, can improve on our methods and our recommendations, we, in the United States, may be able to get more support for making the decision to go ahead. We have hopes of the new head of the Bureau of Economic Analysis, Carol Carson. I would like very much to do so; we have the usual budgetary problems, but I hope we can proceed.

Mary Collins indicated that it is important for us to make women's work visible and that certainly is true. I would suggest there's much more at stake. There is a lot of work, a lot of output which is invisible and that does have serious implications for our ability to get the information on which to make decisions, important decisions of policy in the United States, in Canada and in the rest of the world, and I'll get to some of them.

Ian Macredie pointed out that there are many forms of unpaid work that we want to include and this has been reflected in the discussions. It's not only the work in the household; it's the work of volunteers: the people who are working without

pay, in non-profit institutions and all kinds of areas in society. I might just add another one, to point out to you how deceptive things can be if we count our output, or our costs of output only in terms of what is paid.

By this I mean the draft, conscription, which we had in the United States until not too many years ago. I must say I consider that an unfortunate way of finding servicemen, but it is particularly interesting in reference to our unpopular war in Vietnam. When you try to measure the cost of that war, you would do what? You say, well, what was the cost of taking care of the soldiers that were killed, and what we have to pay for the munitions that we used up. We usually don't count the losses of our enemy or adversary. But then you say, what do we have to pay for the soldiers and the sailors and the marines and the air corps, what do we pay? Well, we paid minimal wages in income. (In my war, that is the Second World War, we began at thirty dollars a month or so.)

That was far less than the cost of these servicemen. The cost should have been measured either in terms of the lost output in the United States, the value of that output, or alternatively, and this would give you a much higher cost of the war: what you would have had to pay to get these people to serve voluntarily in Vietnam, an enormous amount. And I would suggest that a society that has a draft is misjudging the cost of its military and of any wars it may get into. In terms of accounting, if it doesn't make some imputation, it is considerably misjudging and mis-estimating the cost of its military actions.

Now, I've indicated the question is not whether, but how; but I'd like to give you some better picture and understanding, as to why it seems so important to me and others. We want a relevant picture of total output in the economy, the total output of goods and services, so we can know how to maximize them, to get more of them, to prevent ourselves from getting less of them. And we're bound in the conventional accounts by a rather curious definition.

I might say to all of you from Statistics Canada, as I say to people in the Bureau of Economic Analysis, many of us recognize our national income and product accounts are remarkable. They are perhaps the greatest single contribution to economic information and analysis that we've had in half a century. I don't know how many of you know them. You get the reports every quarter, usually, in most countries. In the United States it was just reported that for the first quarter of 1993 GDP went up by 1.8% after adjustment for inflation, that's at an

annual rate. And that's a pretty small number and should cause a lot of consternation. It indicates that if we continue to grow at that rate, not only that we'll hardly be keeping up with population growth, but that we won't be keeping up with the need for jobs.

Employment will probably be declining or, at least, unemployment will be increasing because the labour force and productivity together will be increasing at more than a 1.8% rate. That's a very important number and yet it's a number which does not reflect all of the economic activity, by any means, which we want to measure. The reason it doesn't reflect all economic activity goes back to the definition of Gross Domestic Product which we carefully define as final product. The conventional example is that you don't want to count the coal that goes into producing the steel, the steel that goes into the automobile and the automobile finally on top of that. That would be double counting. We say, well, let's just take the final product, take the automobile and that'll reflect everything that went into it.

But the conventional Gross Domestic Product is a concept of product produced at market prices for the market. And therefore, the definition of final product which is adhered to with just a few exceptions, is the sale of products which are not resold during the period. So, something is purchased but not resold, it's final. If it's resold, it's not final. So, of course, since the steel was sold to the automobile company, but then resold in the form of an automobile, the steel is not counted as a final product.

But where does that leave you with regard to household activities? They're not being sold; the only thing that you have in the way of a sale or a purchase is a purchase of input, of the food that you cook. But the final product, the cooked food, is not sold. So that's not being picked up. We have that definition of the GDP limiting us and as I will point out as we proceed, if we don't supplement it, we can be very much misguided. And not only from the standpoint of women, but also from the standpoint of all kinds of decisions in the economy. In fact, we have estimates in the paper by Ann Chadeau, that by excluding non-market activity in general, we are excluding anywhere from a quarter to a half of the total production of goods and services.

That failure to include a great deal of production because it is not sold causes various distortions. Let me get to a few of them. It exaggerates the increase in real final output, what I would call final output. Final output, by my measure, would be the output that we actually use, whether it has been sold to us or not. And that occurs because of profound movements of society of which women are a major

factor. I suppose in Canada, as in the United States – I haven't seen the figures – but there has been a tremendous and continuing movement of women into the labour force. They leave the work they're doing at home. It's true, as many of you women complain, you go on doing a great deal of work in the home anyway and then also work in the labour force. But inevitably, there are only 24 hours in a day and time is taken from work at home.

So you take a job, you no longer take care of your child most of the day. However the Gross Domestic Product is whatever you produce in that job, while also going into the Gross Domestic Product is what you pay for child care in a child care centre. We take no notice of the fact that **your** child care is no longer being provided. So we have an addition to product because we count what is now produced for the market, we neglect the fact that we are producing less of non-market output. And I think that may account for the rather strange contradiction between what the statisticians seem to be telling us and public perceptions.

I think the Bush administration had a great deal of trouble with that, because they kept seeing the statistics put out by our B.E.A. showing Gross Domestic Product growing 2%, 3% even 4% a year, and people in the public opinion poll were saying things are terrible! They're worse off than they were. The economy's bad! What was going on? What was wrong with our figures? I think one of the reasons for this real perception of the people that we're not doing so well is that we're running twice as hard to stay in the same place. They were taking jobs, adding to the Gross Domestic Product in that way but we were not recognizing the loss of services produced in the home or even the loss of after-tax income to people. You know you took a job and then you had to pay your bus fare and you had to pay the child care and you had to pay more for restaurant meals, or more for prepared food because you didn't have time to cook. You had all these added costs, what was left was somewhat less. So we have this distortion of measure on our final output.

There's another little distortion I might point out to you, which I don't think is widely known. I have to credit a woman economist with whom I collaborated for giving me this notion, Nancy Barrett, who had worked in the Carter administration for a bit and then was recently, I think a Dean at Rutgers. But we keep lamenting the fact, and you must hear it here in Canada, that what in the world has happened to our productivity growth? I might suggest that there is a curious kind of mismeasure here and that is that we are measuring of course the productivity per hour of **market** labour.

Much as women may deplore their plight, I would have to say, by a kind of revealed preference that we get from them, when a woman leaves the screaming kids at home and takes a job in the market, she is increasing her utility, unless she's crazy, because she thinks she's getting more out of the job in the market than at home. Now aside from the question of whether there are side conditions of pleasurable or not, the fact that she is looking for a job outside the home, indicates that she finds in her own mind, that the benefit she's getting after taxes, in the market is more than the value of what she's producing with her time at home. Otherwise it would be foolish to do it.

So there is that presumption that women going into the labour force are actually raising average productivity if you count the productivity that they had at home before against the productivity now in the labour market. But a funny thing happens when they get into the labour market, they find, as you all know, that they are earning not as much as men are earning and whatever the reasons for this discrepancy, as we measure productivity, you can measure it in terms of the real wages per hour, since they come into the labour force, and add to the labour force people who are earning less per hour than the men that are there, the productivity of market labour is going down on the average. That's a phenomenon that might take some looking into. If we had appropriate measures of non-market activity, we'd have a better sense, then, of non-market output, a better sense of what's happening to productivity and answer what we might want to do about things. I might suggest, I can come to this again, all kinds of measures for making up for the lost output of women at home.

Other distortions occur with regard to saving and investment. Suppose people stop going to movies as much because they prefer to watch movies on their television sets and even watch them on their new V.C.R.'s. Therefore, there is less investment in new movie houses, new cinemas. So gross private domestic investment goes down. But there's more investment in V.C.R.'s and television sets. We don't pick up that. In both cases, the investment is designed to permit people to watch movies. So by not picking up, by not counting the value of the movies you see at home, we don't count them. We don't count, as we pointed out, the services of your automobile when you drive it, so that if you buy an automobile to drive yourself around, that's not investment, even if you use it to drive to work. But if you decide not to buy the automobile yourself but to rent it from Hertz or Avis, and Hertz or Avis buys it, or any other rental company, it counts as investment. Not recognizing the services produced in the household as part of

output, we also don't recognize the goods that we buy with which we produce those services as investment. We thus get a mismeasure of investment and therefore a mismeasure of saving.

The big argument for reducing the deficit that everybody talks about without knowing what it is, the big argument is you have to reduce the deficit so that they'll be more business investment, we'll have more saving and investment. The Government sector borrowing is crowding out private business investment. But then the answer given is we have to reduce the deficit: let's say we raise taxes to reduce the deficit or we cut Government expenditures. What if you cut Government expenditures to reduce the deficit? Suppose you cut the expenditures for schools, for roads, for bridges. That's investment. You're supposedly starting on this road in order to increase saving and investment, and you want to cut the deficit for that purpose, and you accomplish it by reducing the very thing you're trying to increase, presumably investment. Well, our conference is on households and on unpaid labour in the household, but precisely the same thing can occur there! We raise taxes, for example, to reduce the deficit and people can't afford to buy a new washing machine, television set, automobile or whatever. So again we're reducing total investment, total saving and we're not even aware of it because our measure does not reflect the value of unpaid labour, the value of non-market services produced in the household.

Now in addition to trying to guide us on policy matters of this kind, out of the conference there were various suggestions as to how data on non-market activity, on the value of unpaid labour would be useful. It came up in the sessions and the remarks of Jamie Cassels, on litigation having to operate in an ad-hoc fashion in each case in deciding the value of a lost life or injured person. If we went ahead and finally agreed on appropriate measures on the value of unpaid labour and of nonmarket activity, there would be a better guide for some standardized approach.

We can move, next, into the question of how to measure this non-market activity. Duncan Ironmonger suggested (and I found myself enthusiastically in support) that we should get our measures of non-market activity and put them together in a form that meets the needs of the national accounts of the market activity. Then we could present, the conventional measure of GDP (it's highly useful for all kinds of purposes) and alongside that, GDP_M, I'll call it, a GDP for market output (although there are a few imputations you might want to take out, such as the rental value of owner occupied housing). That way we measure

GDP in the market and then a GDP for the non-market. We'd have then national income as essentially the income earned producing the nation's goods and services. So, to each component of national income, whether it's wages, profits, rents, whatever, that is produced in the market, we'd have a non-market component and we could add those two together. Or we could then have a set of accounts with the GDPM (which is close to the conventional market GDP) the GDP non-market and then you could have the GDP total. If you want to pay attention and make a decision for some purposes only on the market GDP, you can. If for many purposes you need the non-market, you will have that as well.

Now, how do we get some notion of what is production? We do all kinds of things outside the market: we brush our teeth, we sleep, we comb our hair. What is market, what is production? And as Ann Chadeau and Luisella Goldschmidt-Clermont pointed out, we have a reasonable criterion for that, the third person criterion. And we suggest that the things that could be delegated to a third person might well be considered production and the things that you cannot delegate to a third person are not. For example, if you are driving your car for pleasure, if you let somebody else drive it, then you're losing that pleasure. So it wouldn't count and therefore you would not consider that production. On the other hand, driving to go marketing, you could take a taxi, you could get somebody else to drive you, so that would be a non-market activity which we would count.

Now, Dr. Goldschmidt-Clermont's preference, as is mine, is to have a measure of output in the market which would look directly at output in the home. For example, we produce three meals a day for one person and two meals a day for another person, so many meals a day are produced by the household. What would it cost if you had a caterer produce those meals? Or what would it cost if you went to a restaurant? Get some measure of the cost of the meals and that would be the product, that would be one aspect of the product. And go to each activity and say what would it cost? It was mentioned that you have to administer a drug to your aged mother. Well how much would it cost to call a nurse in to administer it? How much would it cost if you were in a hospital getting it? Now there are all kinds of questions as to what price to take and what measure. We'd be looking at the output.

Now if you want to know what is the wage that we should impute to the person that gives the drugs to our mother, cooks the meals, once you have the market output, as Luisella pointed out, you can go back, take out all the other costs, the food that you

bought in the store, and so forth, that went into the output and what's left would be the wage. That is one way of computing the wage.

Our measure of output, and this point is central, is output produced for the market at factor cost. So there's an equivalence between the cost of producing something and the value in the market. And that's going to lead me into the apparently highly argumentative issue of value and how we value things.

In our market activity, we value output in terms of what people pay for it. And I'll elaborate on this, that's not necessarily its "true" value. In one of the workshops, one participant said, "How can you put a value on what I do in the home? I work in the home all the time. I'm entirely a home worker, except for the volunteer activity of participating in conferences like this and contributing to other organizations." And she said, "Many times, my child may be gravely ill, maybe on the verge of death, and I prevent that child from dying. How can you put a value on that?" And I responded, "Well, suppose your child is sick, has some disease that seems to be incurable. You take the child to a wonderful doctor. You find one, and he discovers the cause. He operates and does whatever and cures the child and sends you a rather high bill, five thousand dollars. How much was that really worth? You would have paid much more than five thousand dollars to save your child's life. If you had it, you would have paid a million."

But the statistician can't try to decide that. He says, "Well, the value of production is the value that you pay, that was paid for this product." We have that problem all the time. We can't tell you how much real value you're getting, how much happiness, how much satisfaction you're getting. We're trying to give you an objective measure. There are things that are vital. I mean, the total value of food produced in Canada and the United States is a very small proportion of the total product. But you can rightly say that without that food we'd all die, we'd starve to death. So how can you say that food has a value of only 5% of total product? But of course, you're right; we'd all die without that food, but we're not trying to make that kind of decision.

We're telling you the value of goods produced for the market, and frankly, that's about all we, as economists and statisticians, can do, to give you the value of non-market work of unpaid labour. That I submit would be a tremendous contribution to give you an approximation to the market value because it's not recognized at all now, it's being counted as zero. So I don't think you should spend all your time

quarrelling, "Why do you give it a market value? I mean, do you give it a market value corresponding to the wages of women? We all know that women are underpaid in the market." The same thing is happening with our market output.

Do you know why women are underpaid? It may be, frankly, because women have been pushed, or allowed themselves to drift into occupations for the product of which people are not willing to pay a lot of money. And therefore, their product is considered less in the market. Those are things to address at a political level. And try to get women to major in economics and not sociology, so that they get into a higher paying occupation. And try to fight for equal pay for equal work and all of those things.

But I don't see that as something to confuse our measurement with. We have a consistent way of measuring which is perhaps as far as we can go. The issue came up in the workshops frequently and I think it was mentioned this morning briefly that we have a problem of not measuring the management skills of women and their tremendous ability to manage a household. I'm about to come to the big joker, you must have heard it years ago, about the successful marriage. A man says, "I have a successful marriage." And what's the explanation? He says, "Well, it's easy. We don't have any fights," he says, "I make all the big decisions and I let her make all the little decisions." "What are some examples of the big decisions?" "Well, the big decisions are what we should do about Bosnia and what we should do about Somalia and what we should do about the U.S. budget deficit." "What are the small decisions?" "Oh, the small decisions are: What school the kids should go to? What neighbourhood we should live in? What house we should buy? The wife makes all the small decisions."

So we know that women have all these important management decisions like managing a household. But this value can be captured too if you look, it seems to me at the value of output. Because on a market basis, a restaurant for example, has to have a management. And that management cost is reflected in the price of the product. So indirectly, you're going to get maybe not the same management, but indirectly you'd be getting management. Of course, if you try to estimate the value of non-market product in terms of what you would pay in the market, that would be reflected in the imputed wage.

If you can't get a value of product, it was agreed we might have to go back to directly measuring the value that labour produced, of labour in the household. And if we did that, we would have a choice of taking the value of labour in terms of what

it would cost to get substitute labour. How much it would cost to get a babysitter? How much it would cost to get somebody to come in and cook your meals? And so forth and so on. And that would be one way of getting at it. And you could also take a wage for domestic labour in general which would be very simple but obviously not preferable. Or you could get the opportunity cost, as we put it. What the person in the home is giving up by not working in the market.

Now, we won't take the time to go into all the various virtues and pitfalls of either. Opportunity costs might be somewhat shakier, at least in having varying costs of doing the same thing, depending upon the woman who's doing it. Whether she has the chance to be a business executive, or if she has a chance to be a stenographer, the value of her child care may be the same. If you take the opportunity cost measure, it would be considerably different. But I should just point out one issue that came up. I'm not sure if everybody agrees, but it does seem clear to me, that if you're going to measure the value of unpaid work in the household in terms of the substitute labour cost, it should be the gross wage paid in the market. That is the wage including taxes, including social security contributions or whatever, because remember our notion is ultimately to get at the market value of output. And the market value of output reflects all of these costs. So since we're only trying to use the wage to get at the value of output, we could take the gross wage. On the other hand, if you're dealing with an opportunity cost you might well want to take the net wage. The reason I say this is because the opportunity cost of the person in the household (as she well knows is what if she gives up her work in the household to take a job) is what she's going to net in her job after taxes. That is what she views as the value of a market job. Using the opportunity cost measure then should be net of taxes.

Now the issue came up, just raised in our discussion earlier this morning, of the time and frequency of surveys. In order to get a measure of value of output you need not only the wage that you want to impute if you're getting the value of household output by that method, you also have to know the number of hours people work. I think the point was well made by Ivan earlier that you may not need to have a survey that frequently. It seems to me the total amount of time put in in the household does not vary very much because from one week to the next or one quarter to the next you spend more or less time taking care of your father who had a stroke, though, for one individual that might be true. But unless there is a sudden change in the incidence of strokes, or whatever, that's not going to change much in the aggregates. What does

change is that people move in and out of the labour force, population categories shift, the number of people taking care of their children changes as the population age changes and those things we don't have to get by time-use studies. So it might be well to try to prevail upon governments to have some very good time-use studies periodically but not think you have to get one every quarter as we would if we trying to get market GNP. We can rely upon changes in the mix in the intervening periods to get where we want to get.

Now, I have already started on the value of women's work and I guess I should remind you then of the limitations of economic national accounts. The true value in some philosophical sense is not the goal of our national accounts and it's not their capability I'm afraid. You just have to make your adjustments. I've presented in my book a lot of other adjustments. I mean suppose you have a Gross Domestic Product which is huge because you're spending 20% of that product on the military. Now I'm perfectly happy to recognize that production. But is that really a final product or is that perhaps an input? Whether it's necessary or not, it's something we're using to defend ourselves so we can produce what is final product. And there are all kinds of other adjustments, for prices, many adjustments to make, adjustments in part, again because, maybe, of the high prices we have on certain things. You know, we used to compare GNP in the U.S. and in the Soviet Union and you'd get weird results, different results depending upon which valuation you used. Whether you took the prices as American prices for the Russian product or Russian prices for our product, you'd get vastly different results.

And we can raise that question and recognize then the deficiencies of our measure but our measure is essentially in terms of whatever people are paying for things. We're not measuring human happiness or justice. We can tell what has been produced and what people have paid for it. And we seek now to add the output for which they have not had to pay and as I say, I think this would be a major

contribution. How large a contribution it is, I can remind you is confirmed by the material that was presented to us by Andrew Harvey. I thought he had rather dramatic figures after quizzing us on our estimates and I can remind you, in terms of women's issues, it's a major tie-in. Males 15 years and over, reported on the average, 4.1 hours per day in paid work and 2.6 hours per day on the average in unpaid work. For females, it was 2.4 hours in paid work and 4.5 hours in unpaid work. And that indeed may minimize the difference because it's been pointed out, that since these are all people over 15, and women live considerably longer, we have a situation where we are understating the total amount of work done by women.

There are other numbers he presented that I've seen that indicate that total work of women in terms of hours is more than that of men. So perhaps you should say, by distorting the measure of women's contributions as much as we're doing in traditional national accounts, given that women work so extensively in the home in unpaid activity, we're distorting a measure, or ignoring entirely a measure, of as much as half of total production in the world.

Well, I think the title on this was, "Summary and Vision for the Future," so I'll close with my vision for the future. And that is that we have comprehensive measures to guide us in vital policy decisions; policy decisions then regarding saving and investment, human capital investment, which is a very important aspect of activity in the household, and public investment. We'd measure not just business market output, but also all of the output of government, non-profit institutions and households and therefore get the role of all of them in the economy. This world is for all of us. We all play a part. Our measures must not ignore or distort the role of a third or so, or half, whatever, of economic activity or of half of our people. If those measures are to be used in improving the world, or at least prevent it from getting worse. So with that happy thought, I'm open to you all.

APPENDICES

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
Managing Work and Family In Home-Based Employment	Ramona K.Z. Heck Mary Winter Kathryn Stafford	Cornell University Iowa State University The Ohio State University	Contant: Kathryn Stafford Associate Professor Ohio State University 1787 Neil Avenue Columbus, Ohio USA 43210			Journal of Family and Economic Issues, Summer 1992, Vol. 13(2)	
Distribution of Economic Resources: Implications of Including Household Production	Jens Bonke	University of Copenhagen	Institute of Economics Studiestraede 6 Copenhagen, Denmark 1455 K	3532 3023	3532 3000	Review of Income and Wealth, Series 38, Number 3, September 1992	
Economic Dimensions of Volunteer Work in Canada	David P. Ross	Department of the Secretary of State				January, 1990	0-662-57897-X
Why Lawyers need Statistics on Unpaid Work	Jamie Cassels and Lisa Philipps	Faculty of Law, University of Victoria	P.O. Box 2400 Victoria, B.C. Canada V8W 3H7	(604) 721-8165	(604) 721-8146		
Damages for Lost Earning Capacity: Women and Children Last	Jamie Cassels	Faculty of Law, University of Victoria	P.O. Box 2400 Victoria, B.C. Canada V8W 3H7	(604) 721-8165	(604) 721-8146	September 1992	Reprinted from the Canadian Bar Review
Investment in Education and U.S. Economic Growth	Dale W. Jorgenson Barbara M. Fraumeni	Harvard Institute of Economic Research, Harvard University, Cambridge, Massachusetts	Bedford 404 Kennedy School Government Harvard University, Cambridge, Massachusetts 02138	(617) 437-2877	(617) 4373640	October 1991	Discussion Paper No. 1573
Life-Time Income of Men and Women - The Case in Denmark	Jens Bonke	Institute of Economics, University of Copenhagen	Studiestraede 6, 1455 K, Copenhagen Denmark	3532 3023	3532 3000	Journal OF1 Consumer Studies and Home Economics, 1992	16,303-316
Valuing Household Production, a Framework For Comparisons Used on Danish Figures	Jens Bonke	Institute of Economics, University of Copenhagen	Studiestraede 6, 1455 K, Copenhagen Denmark	3532 3023	35323000	22-04-1993 Unpublished	

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
Implicit Income Generated by Home-Based Employment and its Impact on Household and Social Welfare	Xiaojing Jessie Fan	The Ohio State University					
The Contribution of Non-Monetized Working Time in The Spanish Economy	Maria-Angeles Duran	Centro De ciencias Sociales	Pinar 25, 28006 Madrid Spain	(91) 411 10 98 - 561 53 08	(91) 562 55 67	16 March 1993	
Housewives in Dialogue: Women's Unwages Work - The Heart of the Informal Sector	Selma James	Wages for Housework Campaign	King's Cross Women's Centre 71 Tonbridge St., WC1H 9DZ Mailing Address: P.O. Box 287, London, NW6 5QU	071 837 7509	071 833 4817	19 March 1991	
Work and Family Resources List: - "All in a Day's Work" - "Balancing Work and Family Responsibilities: a Union Discusses the Issues" - "Sharing the Balance: The Union Gas Experience" - "Work and Family: The Crucial Balance" - "The Work and Family Fact Sheet" - "Work and Family: Flexible Working Arrangements" - "Work and Family: The Struggle to Juggle, Training Manual"	Economic and Workplace Equity Unit Consultative Services Branch	Ontario Women's Directorate	2 Carlton St. 12th Floor Toronto, Ontario M5B 2M9	(416) 314-3994	(416) 314-0256		

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
Women's Research Centre:		Women's Research Centre	101-2245 West Broadway Vancouver, B.C. Canada V6K 2E4	(604) 734-0485	(604) 734-0484	Summer 1992	
- "Research for Change: Participatory Action Research for Community Groups"							
- "Taking Action: A Union Guide to Ending Violence Against Women"						1992	
- "Strategies for Change: from Women's Experience to a Plan for Action"						1992	
- "Keeping on Track: An Evaluation Guide for Community Groups or Maintenir le cap: Guide d'évaluation pour les groupes communautaires"							
- "Recollecting our Lives: Women's Experience of Childhood Sexual Abuse"						1990	
- "Patterns of Violence in the Lives of Girls and Women: A Reading Guide"						1989	
- "Just Give us the Money: A Discussion of Wage Discrimination and Pay Equity"						1989	
- "In Women's Interests: Feminist Activism and Institutional Change"						1988	
- "Action Research for Women's Groups"						1988	
- "Women and the Economy Kit"						1987	
- "Just Wages: a Bulletin on Wage Discrimination and Pay Equity"						1986	
- "Feminist Action, Institutional Reaction: Responses to Wife Assault"						4 Issues in 1991 and 4 Issues in 1992	
- "A Study of Protection for Battered Women"						1985	
						1982	

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Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
Women's Research Centre: Concluded		Women's Research Centre	101-2245 West Broadway Vancouver, B.C. Canada V6K 2E4	(604) 734-0485	(604) 734-0484	1980 1979	
- "A Review of Munroe House - Second Stage Housing for Battered Women"							
- "Beyond the Pipeline"							
Community Education Section:		Office of the Status of Women	DAS Distribution P.O. Box 655 Fyshwick Act 2609	(06) 2801536	(06) 2025696		
- "International Labour Organisation Convention 156: Workers with Family Responsibilities:							
- "Sharing the Load (Selected Conference Papers)"							
- "Please add me to the Mailing List for the Working Families Newsletter"							
- "Working Families Issues Kit"							
- "Selected Findings from Juggling Time"							
- "Set of six(6) Posters"							
- "Resource Material for Parent Educators and Families"							
Videos are available:		Office of the Status of Women	Australian Government Publishing Bookshop, Canberra				
- Video 1: "Another Tuesday Night"							
- Video 2: "On any Wednesday"							
Community Education Section:							
- Juggling Time - How Australians Use Time							
- Full Report							
Household Work: What's it Worth and Why?	W. Keith Bryant Cathleen D. Zick Hyoshin Kim	Cornell Cooperative Extension Publication	Cornell University Ithaca, N. Y. USA 14853			1992	Bulletin 322 IB228

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
The Dollar Value of Household Work	W. Keith Bryant Cathleen D. Zick Hyoshin Kim	College of Human Ecology	Cornell University Ithaca, N.Y. USA 14853			December 1992	5C ML E1152OG
Concilier... l'inconciliable... La conciliation des responsabilités familiales et professionnelles dans trois milieux de travail de la région de Montréal	Andrée-Lise Méthot, agente de recherche Louise Vandellac, Professeure de sociologie, (UQAM), avec la collaboration de Karen Messing, Professeure de biologie (UQAM) et Nicole Vézina, Professeure de biologie (UQAM)	Service de la condition féminine de la FTQ et le service aux collectivités de l'Université du Québec à Montréal				Mars 1993	
The Value of Household Work in Canada, 1986	Chris Jackson	Reprinted from National Income and Expenditure Accounts and Environment Division		(613) 951-1799		Quarterly Estimates July 1992	Cat. No. 13-001
Capital Labour Substitution in the Home, Technology and Culture	Tanis Day	Department of Economics Queen's University	Queen's University Kingston, Ontario K7L 3N6			April 1992	
The Perils of Woman - Blindness in Data Collection Prepared for First Conference of Feminist Economics, Washington D.C.	Tanis Day	Department of Economics, Queen's university	Queen's University Kingston, Ontario K7L 3N6			July 1992	
A Profile of the Canadian Volunteer: A Guide to the 1987 Survey of Volunteer	David P. Ross Richard Shillington	Social Policy Consultants, Ottawa	National Voluntary Organization P.O. Box 15812 Ottawa, Ontario K2C 3S7			November 1989	
Work and Family Executive Summary Work and Family: the Survey Findings	Carnet: the Canadian Aging Research Network					March 1993	

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
Canadian Families and their Child Care Arrangements: The Canadian National Child Care Study	A study conducted by the Canadian National Child Care in collaboration with Statistics, Household and Special Surveys Division, Health and Welfare Canada	The Governments of Ontario and New Brunswick	Statistics Canada Publication Sales Ottawa, Ontario K1A 0T6	1 800 267-6677	(613) 951-1584		
OECD Household Production Network	Ann Chadeau	Administratrice à la Division des Statistiques Économiques et des Comptes Nationaux du Département des Affaires Économiques et Statistiques de l'OCDE	2, rue André Pascal 75775 Paris Cedex 16 France			Mailing list: 30 July 1992 Updated: 30 December 1992	
OECD Household Production Network Bibliography	Ann Chadeau	Administratrice à la Division des Statistiques Économiques et des Comptes Nationaux du Département des Affaires Économiques et Statistiques de l'OCDE	2, rue André Pascal 75775 Paris Cedex 16 France			31 décembre 1992	
Revue économique de l'OCDE: Que vaut la production non marchande des ménages?	Ann Chadeau	Administratrice à la Division des Statistiques Économiques et des Comptes Nationaux du Département des Affaires Économiques et Statistiques de l'OCDE	2, rue André Pascal 75775 Paris Cedex 16 France			Printemps 1992	No. 18

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
Etlä Elinkeinoelämän Tutkimuslaitos Kotitaloustutointo ja Taloudellinen Kasvu Household Production and Economic Growth - A Survey of Methods of Measurement and Empirical Results with an Estimate of Household Production in Finland in 1960-1987	Hilkka Taimio	Research Officer University of Joensuu Department of Economics	P.O. Box 111 SF-80101 Joensuu Finland	(90) 609 900	(90) 601 753	Helsinki 1991	Sarja B74 Series
Northern Manitoba Women & Sustainable Economic Development Commission	Hari Dimitrakopoulou	Northern Manitoba Economics Development Commission	Suite #304-83 Churchill Drive Thompson, Manitoba R8N 1L6	(204) 677-6502 or (204) 677-9748	(204) 677-6503	April 1993	
L'économie des femmes? "Des femmes dans les sciences et des sciences sur les femmes"	Louise Vandelac	Université du Québec à Montréal	Département de Sociologie, UQAM C.P. 8888, Succursale A Montréal, Québec H3C 3P8				
L'embryo-économie du vivant.. ou du numérique aux embryons surnuméraires	Louise Vandelac	Université du Québec à Montréal	Département de Sociologie, UQAM C.P. 8888, Succursale A Montréal, Québec H3C 3P8			1990	
Du travail et de l'amour, les dessous de la production domestique	Louise Vandelac Diane Bélisle Anne Gauthier Yolande Pinard	Université du Québec à Montréal	Département de Sociologie, UQAM C.P. 8888, Succursale A Montréal, Québec H3C 3P8			1985	
The History of Women and the History of Statistics	Margo Anderson	University of Wisconsin-Milwaukee	Department of History College of Letters and Sciences Holton Hall P.O. Box 143 Milwaukee, WI 53201 U.S.A.			1992 Journal of Women's History	Vol. 4, No. 1 (Spring)

LIST OF PAPERS MADE AVAILABLE AT THE CONFERENCE

Title of Paper	Author	Organization	Address	Phone #	Fax #	When Available	ISBN #
International Association for Research in Income and Wealth 22 General Conference Session 2: Market and Nonmarket Use of Time	Dieter Schäfer	Federal Statistical Office	Gustav-Stresemann-Ring 11 D6200 Wiesbaden 1	011 49 611 752100	011 49 611 724000	August 31 - September 5, 1992	
Discussion Paper: Valuing Women's Unpaid Work		Ministry of Women's Affairs				September 1989 Reprint with Amendments July 1990	0-478-04061
Women in the Informal Sector in New Zealand: A Case for a Time-Use Survey	Robin McKinlay Senior Policy Agent	Ministry of Women's Affairs P.O. Box 10-049 Wellington New Zealand				2 - 5 November, 1992	
The American Census, A Social History	Margo J. Anderson	University of Wisconsin-Milwaukee	Department of History College of Letters and Sciences Holton Hall P.O. Box 143 Milwaukee, WI 53201 U.S.A.			1988	0-300-04709-6
Option for the Valuation of Unpaid Work in New Zealand 1991	Report Prepared by the Economics Division	Department of Statistics New Zealand Te tari tataua o Aotearoa	Wellington Aorangi House 85 Molesworth St. P.O. Box 2922 New Zealand	0-4-495- 4600	0-4-472- 9135	1992	Cat. No. 08.028.0000
Testing Time Report of the 1990 Time Use Pilot Survey	Report Prepared by the Household Surveys and Social Division	Department of Statistics New Zealand Te tari tataua o Aotearoa	Wellington Arangi House 85 Molesworth St. P.O. Box 2922 New Zealand	0-4-472- 9119	0-4-472- 9135	1991	Cat. No. 01-027-0090 0-477-06483-3
Estimation de la valeur du travail domestique: la recherche de l'indicateur statistique idéal	Marie-Thérèse Chicha	Université de Montréal	Faculté des arts et des sciences Ecole de relations industrielles C.P. 6128, Succursale A Montréal (Québec), H3C 3J7 Bureau: 3150, Jean-Brillant, #7070	(514) 343-7319	(514) 343-5764	4e trimestre, 1988	ISSN-0715-3570

APPENDIX 2

OTHER STATISTICS CANADA
PUBLICATIONS ON UNPAID WORK

The following publications are available in English and French and can be ordered using the form at the back.

A. Studies / Articles Related to the General Topic of Unpaid Work

Harvey, Andrew S., Katherine Marshall and Judith A. Frederick. "Where does Time Go?" Catalogue 11-612E No. 4, 1991.

Caring Communities: Proceedings of the Symposium on Social Supports, Catalogue 89-514E, January 1991. (Symposium held March 28 and 29, 1989).

Health and Social Support, 1985. Catalogue 11-612E no. 1, 1987.

Lavigne, Mylène and Jean-Pierre Morin. "Leisure and Lifestyles of Persons with Disabilities in Canada." Catalogue 82-615, Vol. 4, January 1991. Bilingual.

Women in Canada, Catalogue 89-503E, February 1990.

Zukewich Ghalam, Nancy. "Women in the Workplace, Second Edition." Catalogue 71-534E, 1993.

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A. Measurement

Hawrylyshyn, Oli. "Estimating the Value of Household Work in Canada, 1971." Catalogue 13-566, June 1978. Bilingual.

Jackson, Chris. "The Value of Household Work in Canada, 1986." National Income and Expenditure Accounts, Quarterly Estimates, Catalogue 13-001, First Quarter 1992 (also available in National Accounts and Environment Division, Technical Series, Number 19, July 1992). Bilingual.

B. Studies / Articles Related to Household Labour

Marshall, Katherine. "Employed Parents and the Division of Housework." Perspectives on Labour and Income, Catalogue 75-001E, Autumn 1993.

C. Volunteer Work

Studies / Articles Related to Volunteer Work

An Overview of Volunteer Workers in Canada, Catalogue 71-530, February 1980 (also available as: Labour Force Survey Research Paper Number 26, June 1981.) Bilingual.

D. Caregiving

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Adams, Owen et al. "Profile of Persons with Disabilities Residing in Health Care Institutions in Canada." Catalogue 82-615, Vol. 6, May 1991. Bilingual.

Burke, Mary Anne and Susan Crompton, Alison Jones and Katherine Nessner. "Caring for Children." Canadian Social Trends, Catalogue 11-008E, Autumn 1991.

Dowler, Judith M., Deborah A. Jordan-Simpson, Owen Adams. "Gender Inequalities in Care Giving in Canada." Health Reports, Catalogue 82-003, Vol. 4, No. 2, 1992. Bilingual.

Dunn, Dr. Peter A. "Barriers Confronting Seniors with Disabilities in Canada." Catalogue 82-615, Vol. 1, August 1990. Bilingual.

Lapierre, Louise. "Measures of Outside Care Given and Received by Seniors." Health Reports, Catalogue 82-003, Vol. 4, No. 4, 1993. Bilingual.

Lero, Donna S. et al. "Introductory Report, Canadian National Child Care Study." Catalogue 89-526E, 1992.

Lero, Donna S. et al. "Parental Work Patterns and Child Care Needs." Catalogue 89-529E, 1992.

McDaniel, Susan. "Emotional Support and Family Contacts of Older Canadians." *Canadian Social Trends*, Catalogue 11-008E, Spring 1993.

Stone, Leroy O. "Family and Friendship Ties Among Canada's Seniors, An Introductory Report of Findings from the 1985 General Social Survey." Catalogue 89-508, July 1988. Bilingual.

"Survey on Ageing and Independence, An Overview." Available free of charge by writing to the: Senior Secretariat, 473 Albert Street, 3rd Floor, Ottawa, Ontario K1A 0K9 or calling 613-952-7358.

The following publications are no longer available for sale. However, they should be available in depository libraries, university libraries and in Statistics Canada reference centres.

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A. Measurement

Berger S. "The Unrecorded Economy: Concepts, Approach and Preliminary Estimates for Canada, 1981." *Canadian Statistical Review*, Catalogue 11-003, April 1986.

Hawrylyshyn, Oli. "A Review of Recent Proposals for Modifying and Extending the Measure of GNP." Catalogue 13-558, December 1974.

Hawrylyshyn, Oli. "Towards a Definition of Non-Market Activities." Queen's University, February 1976. Not available in French/Non disponible en français.

B. Studies / Articles Related to the General Topic of Unpaid Work

Jones, Marion. "Time Use of the Elderly." *Canadian Social Trends*, Catalogue 11-008E, Summer 1990.

Parliament, Jo Anne B. "How Canadians Spend Their Day." *Canadian Social Trends*, Catalogue 11-008E, Winter 1989.

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Adler, Hans J. and Oli Hawrylyshyn, "Estimates of the Value of Household Work, Canada, 1961 and 1971." *Review of Income and*

Wealth, December, 1978, pp. 333-336. (also available as Catalogue P-003E).

Hawrylyshyn, Oli. "The Value of Household Services: A Survey of Empirical Estimates." *Review of Income and Wealth*, Sept. 1976, pp.101-131. (This paper was written at the Office of the Senior Advisor on Integration, Statistics Canada, as Working Paper #1 of the Non-Market Activity project).

Swinamer, J.L. "The Value of Household Work in Canada, 1981." *Canadian Statistical Review*, Catalogue 11-003, March 1985.

B. Studies/Articles Related to Household Labour

Marshall, Katherine. "Household Chores." *Canadian Social Trends*, Catalogue 11-008E, Spring 1990.

Wolfson, MC. "Homemaker Pensions and Lifetime Redistribution." *Analytical Studies Branch, Research Paper Series*, No. 3., Catalogue P-078E.

Volunteer Work

Studies / Articles Related to Volunteer Work

An Overview of Volunteer Workers in Canada, *The Labour Force*, Catalogue 71-001, May 1981.

Duchesne, Doreen. "Giving Freely: Volunteers in Canada." *Labour Analytic Report No. 4*, Catalogue 71-535, No. 4, August 1989.

Pold, Henry. "The Gift of Time." *Perspectives on Labour and Income*, Catalogue 75-001E, Summer 1990.

Caregiving

Studies / Articles Related to Caregiving

Crompton, Susan. "Who's Looking After the Kids? Child Care Arrangements of Working Mothers." *Perspectives on Labour and Income*, Catalogue 75-001E, Summer 1991.

Hagey, Janet. "Help Around the House: Support for Older Canadians." *Canadian Social Trends*, Catalogue 11-008E, Autumn 1989.

Initial Results from the 1981 Survey of Child Care Arrangements, *The Labour Force*, Catalogue 71-001, August 1982.

Initial Results from the 1981 Survey of Child Care Arrangements, Labour Force Survey Research Paper Number 31, September 1982. Catalogue 71-601, (also can be found in Catalogue 71-001 August, 1982).

Lapierre, Louise. "The Health of the Elderly and the Extent of Family Mutual Aid." Health Reports, Catalogue 82-003, Vol.2, No.3, 1990. Bilingual.

Working Mothers and Their Child Care Arrangements in Canada, 1973, The Labour Force, Catalogue 71-001, 1975 Vol. 31, No. 9.

APPENDIX 3

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APPENDIX 4

CONFERENCE AGENDA

Wednesday, April 28, 1993

Chairperson: *Louise Bergeron-de Villiers,*
Acting Co-ordinator, Status of Women Canada

8:30 - 8:50 Welcome of Conference Participants:
Ivan Fellegi,
Chief Statistician of Canada

8:50 - 9:10 Opening Remarks:
The Honourable Mary Collins
Minister Responsible for Status of
Women Canada

9:10 - 9:30 Historical and Current Activities in
Statistics Canada:
Ian Macredie

9:30 - 9:45 Refreshments

9:45 - 12:15 Presentations on Behalf of "User
Requirements" and Data Needs:
Evelyn Shapiro
Duncan Ironmonger
Jamie Cassels

12:15 - 1:30 Lunch

Chairperson: *Stewart Wells*

1:30 - 4:30 Current Research:
Ann Chadeau
Luisella Goldschmidt-Clermont
Andrew Harvey

5:00 - 7:00 Reception

Thursday, April 29, 1993

8:30 - 8:45 Introduction to Workshops:
Patricia Grainger

8:45 - 12:15 Workshops on Specified Issues

12:15 - 1:30 Lunch and Visits to Kiosks
Main Building Cafeteria

1:30 - 5:00 Workshops on Specified Issues

Friday, April 30, 1993

Chairperson: *Bruce Petrie*

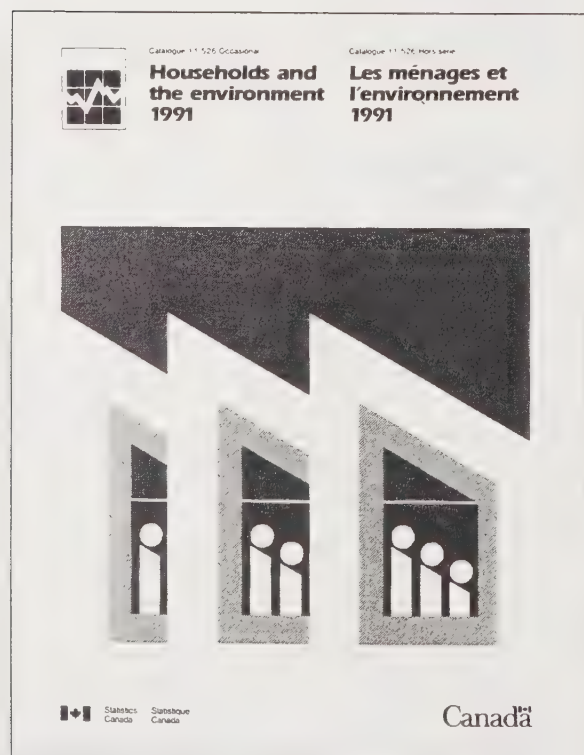
8:30 - 12:00 Summary Lectures, Vision on the
Future and Discussions:
Betty Havens
Regula Herzog
Robert Eisner

12:00 - 12:30 Closing Address:
Ian Macredie

"What have we learned and where do
we go from here"

12:30 - 1:00 Closing Remarks:
Bruce Petrie

Canadians have been making measurable changes in their lifestyles for a cleaner environment!



Householders are remarkably aware of the many steps they can take to reduce the household's impact on the environment. Some of these steps are simple, requiring only a change in a product brand. Others require a greater effort -- digging out weeds by hand, rather than using a pesticide on a lawn.

Statistics Canada conducted a national survey of 43,000 households to examine some of these actions. The product of this survey is a publication entitled ***Households and the Environment***.

This 40-page publication includes detailed analysis of socio-economic characteristics related to household environmental practices, and highlights Canadian's efforts to:

- **conserve energy and water**
- **recycle and compost waste**
- **manage potentially harmful products**

The survey asked questions on a wide range of environmental concerns, including usage of:

- **recycling services**
- **composters**
- **own shopping bags**
- **programmable thermostats**
- **energy-saving light bulbs**
- **low-flow showerheads**

...and much more!

This one-of-kind publication highlights such interesting details as:

- **53% of households have access to recycling, and 86% of these households use the services available.**
- **Nearly 1 in 5 households compost waste.**
- **19% of households in Ontario use water filters or purifiers.**
- **63% of households with infants use disposable diapers exclusively.**

Only with reliable information about the environment can government, business institutions and private citizens respond appropriately.




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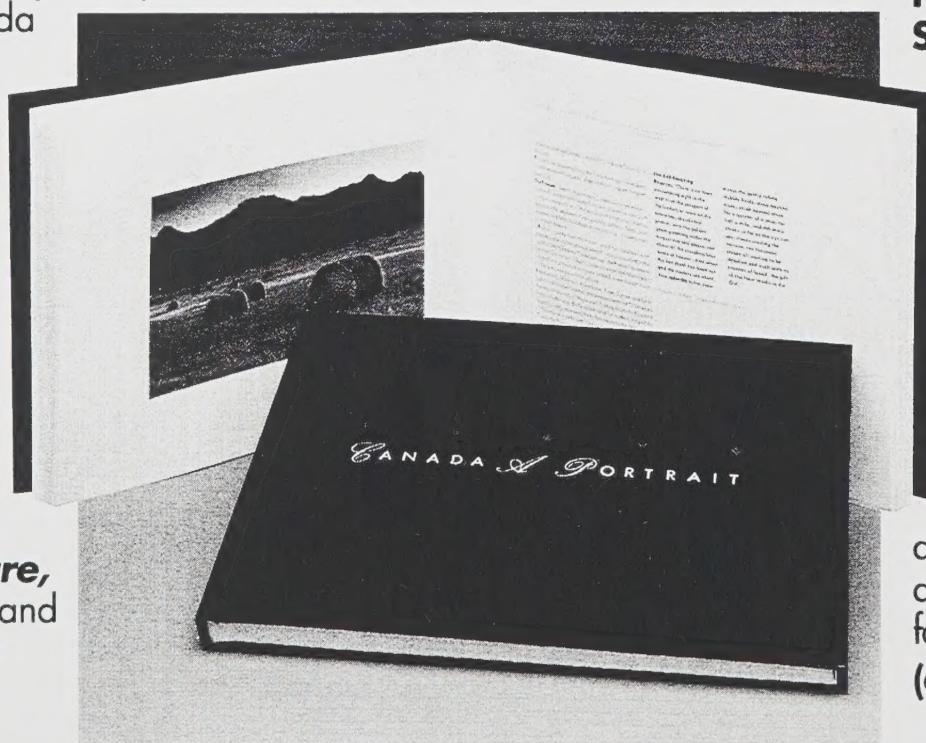
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